SEQUENCE LISTING

<110> Nixon, Andrew
Hogan, Shannon

<120> PAPP-A LIGANDS

<130> 10280-059001

<140> US 10/783,311
<141> 2004-02-19

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<151> 2003-02-19

<160> 394

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 1627
<212> PRT
<213> Homo sapiens

<400> 1

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Arg Ala Gly Arg Pro Pro Arg Pro Ala Ala Gly Pro Ala Thr Cys Ala
        35                  40                  45
Thr Arg Gly Pro Arg Pro Pro Arg Leu Ala Ala Ala Ala Ala Ala Ala
    50                  55                  60
Gly Arg Ala Trp Glu Ala Val Arg Val Pro Arg Arg Arg Gln Gln Arg
65                  70                  75                  80
Glu Ala Arg Gly Ala Thr Glu Glu Pro Ser Pro Pro Ser Arg Ala Leu
                85                  90                  95
Tyr Phe Ser Gly Arg Gly Glu Gln Leu Arg Val Leu Arg Ala Asp Leu
            100                 105                 110
Glu Leu Pro Arg Asp Ala Phe Thr Leu Gln Val Trp Leu Arg Ala Glu
        115                 120                 125
Gly Gly Gln Arg Ser Pro Ala Val Ile Thr Gly Leu Tyr Asp Lys Cys
    130                 135                 140
Ser Tyr Ile Ser Arg Asp Arg Gly Trp Val Val Gly Ile His Thr Ile
145                 150                 155                 160
Ser Asp Gln Asp Asn Lys Asp Pro Arg Tyr Phe Phe Ser Leu Lys Thr
                165                 170                 175
Asp Arg Ala Arg Gln Val Thr Thr Ile Asn Ala His Arg Ser Tyr Leu
            180                 185                 190
Pro Gly Gln Trp Val Tyr Leu Ala Ala Thr Tyr Asp Gly Gln Phe Met
        195                 200                 205
Lys Leu Tyr Val Asn Gly Ala Gln Val Ala Thr Ser Gly Glu Gln Val
    210                 215                 220
Gly Gly Ile Phe Ser Pro Leu Thr Gln Lys Cys Lys Val Leu Met Leu
225                 230                 235                 240
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Gly Gly Ser Ala Leu Asn His Asn Tyr Arg Gly Tyr Ile Glu His Phe
                245                 250                 255
Ser Leu Trp Lys Val Ala Arg Thr Gln Arg Glu Ile Leu Ser Asp Met
            260                 265                 270
Glu Thr His Gly Ala His Thr Ala Leu Pro Gln Leu Leu Leu Gln Glu
        275                 280                 285
Asn Trp Asp Asn Val Lys His Ala Trp Ser Pro Met Lys Asp Gly Ser
    290                 295                 300
Ser Pro Lys Val Glu Phe Ser Asn Ala His Gly Phe Leu Leu Asp Thr
305                 310                 315                 320
Ser Leu Glu Pro Pro Leu Cys Gly Gln Thr Leu Cys Asp Asn Thr Glu
                325                 330                 335
Val Ile Ala Ser Tyr Asn Gln Leu Ser Ser Phe Arg Gln Pro Lys Val
            340                 345                 350
Val Arg Tyr Arg Val Val Asn Leu Tyr Glu Asp Asp His Lys Asn Pro
        355                 360                 365
Thr Val Thr Arg Glu Gln Val Asp Phe Gln His His Gln Leu Ala Glu
    370                 375                 380
Ala Phe Lys Gln Tyr Asn Ile Ser Trp Glu Leu Asp Val Leu Glu Val
385                 390                 395                 400
Ser Asn Ser Ser Leu Arg Arg Arg Leu Ile Leu Ala Asn Cys Asp Ile
                405                 410                 415
Ser Lys Ile Gly Asp Glu Asn Cys Asp Pro Glu Cys Asn His Thr Leu
            420                 425                 430
Thr Gly His Asp Gly Gly Asp Cys Arg His Leu Arg His Pro Ala Phe
        435                 440                 445
Val Lys Lys Gln His Asn Gly Val Cys Asp Met Asp Cys Asn Tyr Glu
    450                 455                 460
Arg Phe Asn Phe Asp Gly Gly Glu Cys Cys Asp Pro Glu Ile Thr Asn
465                 470                 475                 480
Val Thr Gln Thr Cys Phe Asp Pro Asp Ser Pro His Arg Ala Tyr Leu
                485                 490                 495
Asp Val Asn Glu Leu Lys Asn Ile Leu Lys Leu Asp Gly Ser Thr His
            500                 505                 510
Leu Asn Ile Phe Phe Ala Lys Ser Ser Glu Glu Glu Leu Ala Gly Val
        515                 520                 525
Ala Thr Trp Pro Trp Asp Lys Glu Ala Leu Met His Leu Gly Gly Ile
    530                 535                 540
Val Leu Asn Pro Ser Phe Tyr Gly Met Pro Gly His Thr His Thr Met
545                 550                 555                 560
Ile His Glu Ile Gly His Ser Leu Gly Leu Tyr His Val Phe Arg Gly
                565                 570                 575
Ile Ser Glu Ile Gln Ser Cys Ser Asp Pro Cys Met Glu Thr Glu Pro
            580                 585                 590
Ser Phe Glu Thr Gly Asp Leu Cys Asn Asp Thr Asn Pro Ala Pro Lys
        595                 600                 605
His Lys Ser Cys Gly Asp Pro Gly Pro Gly Asn Asp Thr Cys Gly Phe
    610                 615                 620
His Ser Phe Phe Asn Thr Pro Tyr Asn Asn Phe Met Ser Tyr Ala Asp
625                 630                 635                 640
Asp Asp Cys Thr Asp Ser Phe Thr Pro Asn Gln Val Ala Arg Met His
                645                 650                 655
Cys Tyr Leu Asp Leu Val Tyr Gln Gly Trp Gln Pro Ser Arg Lys Pro
            660                 665                 670
Ala Pro Val Ala Leu Ala Pro Gln Val Leu Gly His Thr Thr Asp Ser
        675                 680                 685
Val Thr Leu Glu Trp Phe Pro Pro Ile Asp Gly His Phe Phe Glu Arg
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    690                 695                 700
Glu Leu Gly Ser Ala Cys His Leu Cys Leu Glu Gly Arg Ile Leu Val
705                 710                 715                 720
Gln Tyr Ala Ser Asn Ala Ser Ser Pro Met Pro Cys Ser Pro Ser Gly
                725                 730                 735
His Trp Ser Pro Arg Glu Ala Glu Gly His Pro Asp Val Glu Gln Pro
            740                 745                 750
Cys Lys Ser Ser Val Arg Thr Trp Ser Pro Asn Ser Ala Val Asn Pro
        755                 760                 765
His Thr Val Pro Pro Ala Cys Pro Glu Pro Gln Gly Cys Tyr Leu Glu
    770                 775                 780
Leu Glu Phe Leu Tyr Pro Leu Val Pro Glu Ser Leu Thr Ile Trp Val
785                 790                 795                 800
Thr Phe Val Ser Thr Asp Trp Asp Ser Ser Gly Ala Val Asn Asp Ile
                805                 810                 815
Lys Leu Leu Ala Val Ser Gly Lys Asn Ile Ser Leu Gly Pro Gln Asn
            820                 825                 830
Val Phe Cys Asp Val Pro Leu Thr Ile Arg Leu Trp Asp Val Gly Glu
        835                 840                 845
Glu Val Tyr Gly Ile Gln Ile Tyr Thr Leu Asp Glu His Leu Glu Ile
    850                 855                 860
Asp Ala Ala Met Leu Thr Ser Thr Ala Asp Thr Pro Leu Cys Leu Gln
865                 870                 875                 880
Cys Lys Pro Leu Lys Tyr Lys Val Val Arg Asp Pro Pro Leu Gln Met
                885                 890                 895
Asp Val Ala Ser Ile Leu His Leu Asn Arg Lys Phe Val Asp Met Asp
            900                 905                 910
Leu Asn Leu Gly Ser Val Tyr Gln Tyr Trp Val Ile Thr Ile Ser Gly
        915                 920                 925
Thr Glu Glu Ser Glu Pro Ser Pro Ala Val Thr Tyr Ile His Gly Arg
    930                 935                 940
Gly Tyr Cys Gly Asp Gly Ile Ile Gln Lys Asp Gln Gly Glu Gln Cys
945                 950                 955                 960
Asp Asp Met Asn Lys Ile Asn Gly Asp Gly Cys Ser Leu Phe Cys Arg
                965                 970                 975
Gln Glu Val Ser Phe Asn Cys Ile Asp Glu Pro Ser Arg Cys Tyr Phe
            980                 985                 990
His Asp Gly Asp Gly Val Cys Glu Glu Phe Glu Gln Lys Thr Ser Ile
        995                 1000                1005
Lys Asp Cys Gly Val Tyr Thr Pro Gln Gly Phe Leu Asp Gln Trp Ala
    1010                1015                1020
Ser Asn Ala Ser Val Ser His Gln Asp Gln Gln Cys Pro Gly Trp Val
1025                1030                1035                1040
Ile Ile Gly Gln Pro Ala Ala Ser Gln Val Cys Arg Thr Lys Val Ile
                1045                1050                1055
Asp Leu Ser Glu Gly Ile Ser Gln His Ala Trp Tyr Pro Cys Thr Ile
            1060                1065                1070
Ser Tyr Pro Tyr Ser Gln Leu Ala Gln Thr Thr Phe Trp Leu Arg Ala
        1075                1080                1085
Tyr Phe Ser Gln Pro Met Val Ala Ala Ala Val Ile Val His Leu Val
    1090                1095                1100
Thr Asp Gly Thr Tyr Tyr Gly Asp Gln Lys Gln Glu Thr Ile Ser Val
1105                1110                1115                1120
Gln Leu Leu Asp Thr Lys Asp Gln Ser His Asp Leu Gly Leu His Val
                1125                1130                1135
Leu Ser Cys Arg Asn Asn Pro Leu Ile Ile Pro Val Val His Asp Leu
            1140                1145                1150
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Ser Gln Pro Phe Tyr His Ser Gln Ala Val Arg Val Ser Phe Ser Ser
        1155                1160                1165
Pro Leu Val Ala Ile Ser Gly Val Ala Leu Arg Ser Phe Asp Asn Phe
    1170                1175                1180
Asp Pro Val Thr Leu Ser Ser Cys Gln Arg Gly Glu Thr Tyr Ser Pro
1185                1190                1195                1200
Ala Glu Gln Ser Cys Val His Phe Ala Cys Glu Lys Thr Asp Cys Pro
                1205                1210                1215
Glu Leu Ala Val Glu Asn Ala Ser Leu Asn Cys Ser Ser Ser Asp Arg
            1220                1225                1230
Tyr His Gly Ala Gln Cys Thr Val Ser Cys Arg Thr Gly Tyr Val Leu
        1235                1240                1245
Gln Ile Arg Arg Asp Asp Glu Leu Ile Lys Ser Gln Thr Gly Pro Ser
    1250                1255                1260
Val Thr Val Thr Cys Thr Glu Gly Lys Trp Asn Lys Gln Val Ala Cys
1265                1270                1275                1280
Glu Pro Val Asp Cys Ser Ile Pro Asp His His Gln Val Tyr Ala Ala
                1285                1290                1295
Ser Phe Ser Cys Pro Glu Gly Thr Thr Phe Gly Ser Gln Cys Ser Phe
            1300                1305                1310
Gln Cys Arg His Pro Ala Gln Leu Lys Gly Asn Asn Ser Leu Leu Thr
        1315                1320                1325
Cys Met Glu Asp Gly Leu Trp Ser Phe Pro Glu Ala Leu Cys Glu Leu
    1330                1335                1340
Met Cys Leu Ala Pro Pro Pro Val Pro Asn Ala Asp Leu Gln Thr Ala
1345                1350                1355                1360
Arg Cys Arg Glu Asn Lys His Lys Val Gly Ser Phe Cys Lys Tyr Lys
                1365                1370                1375
Cys Lys Pro Gly Tyr His Val Pro Gly Ser Ser Arg Lys Ser Lys Lys
            1380                1385                1390
Arg Ala Phe Lys Thr Gln Cys Thr Gln Asp Gly Ser Trp Gln Glu Gly
        1395                1400                1405
Ala Cys Val Pro Val Thr Cys Asp Pro Pro Pro Pro Lys Phe His Gly
    1410                1415                1420
Leu Tyr Gln Cys Thr Asn Gly Phe Gln Phe Asn Ser Glu Cys Arg Ile
1425                1430                1435                1440
Lys Cys Glu Asp Ser Asp Ala Ser Gln Gly Leu Gly Ser Asn Val Ile
                1445                1450                1455
His Cys Arg Lys Asp Gly Thr Trp Asn Gly Ser Phe His Val Cys Gln
            1460                1465                1470
Glu Met Gln Gly Gln Cys Ser Val Pro Asn Glu Leu Asn Ser Asn Leu
        1475                1480                1485
Lys Leu Gln Cys Pro Asp Gly Tyr Ala Ile Gly Ser Glu Cys Ala Thr
    1490                1495                1500
Ser Cys Leu Asp His Asn Ser Glu Ser Ile Ile Leu Pro Met Asn Val
1505                1510                1515                1520
Thr Val Arg Asp Ile Pro His Trp Leu Asn Pro Thr Arg Val Glu Arg
                1525                1530                1535
Val Val Cys Thr Ala Gly Leu Lys Trp Tyr Pro His Pro Ala Leu Ile
            1540                1545                1550
His Cys Val Lys Gly Cys Glu Pro Phe Met Gly Asp Asn Tyr Cys Asp
        1555                1560                1565
Ala Ile Asn Asn Arg Ala Phe Cys Asn Tyr Asp Gly Gly Asp Cys Cys
    1570                1575                1580
Thr Ser Thr Val Lys Thr Lys Lys Val Thr Pro Phe Pro Met Ser Cys
1585                1590                1595                1600
Asp Leu Gln Gly Asp Cys Ala Cys Arg Asp Pro Gln Ala Gln Glu His
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                1605                1610                1615
Ser Arg Lys Asp Leu Arg Gly Tyr Ser His Gly
            1620                1625
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<210> 2
<211> 1547
<212> PRT
<213> Homo sapiens

<400> 2

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Glu Ala Arg Gly Ala Thr Glu Glu Pro Ser Pro Pro Ser Arg Ala Leu
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Tyr Phe Ser Gly Arg Gly Glu Gln Leu Arg Val Leu Arg Ala Asp Leu
            20                  25                  30
Glu Leu Pro Arg Asp Ala Phe Thr Leu Gln Val Trp Leu Arg Ala Glu
        35                  40                  45
Gly Gly Gln Arg Ser Pro Ala Val Ile Thr Gly Leu Tyr Asp Lys Cys
    50                  55                  60
Ser Tyr Ile Ser Arg Asp Arg Gly Trp Val Val Gly Ile His Thr Ile
65                  70                  75                  80
Ser Asp Gln Asp Asn Lys Asp Pro Arg Tyr Phe Phe Ser Leu Lys Thr
                85                  90                  95
Asp Arg Ala Arg Gln Val Thr Thr Ile Asn Ala His Arg Ser Tyr Leu
            100                 105                 110
Pro Gly Gln Trp Val Tyr Leu Ala Ala Thr Tyr Asp Gly Gln Phe Met
        115                 120                 125
Lys Leu Tyr Val Asn Gly Ala Gln Val Ala Thr Ser Gly Glu Gln Val
    130                 135                 140
Gly Gly Ile Phe Ser Pro Leu Thr Gln Lys Cys Lys Val Leu Met Leu
145                 150                 155                 160
Gly Gly Ser Ala Leu Asn His Asn Tyr Arg Gly Tyr Ile Glu His Phe
                165                 170                 175
Ser Leu Trp Lys Val Ala Arg Thr Gln Arg Glu Ile Leu Ser Asp Met
            180                 185                 190
Glu Thr His Gly Ala His Thr Ala Leu Pro Gln Leu Leu Leu Gln Glu
        195                 200                 205
Asn Trp Asp Asn Val Lys His Ala Trp Ser Pro Met Lys Asp Gly Ser
    210                 215                 220
Ser Pro Lys Val Glu Phe Ser Asn Ala His Gly Phe Leu Leu Asp Thr
225                 230                 235                 240
Ser Leu Glu Pro Pro Leu Cys Gly Gln Thr Leu Cys Asp Asn Thr Glu
                245                 250                 255
Val Ile Ala Ser Tyr Asn Gln Leu Ser Ser Phe Arg Gln Pro Lys Val
            260                 265                 270
Val Arg Tyr Arg Val Val Asn Leu Tyr Glu Asp Asp His Lys Asn Pro
        275                 280                 285
Thr Val Thr Arg Glu Gln Val Asp Phe Gln His His Gln Leu Ala Glu
    290                 295                 300
Ala Phe Lys Gln Tyr Asn Ile Ser Trp Glu Leu Asp Val Leu Glu Val
305                 310                 315                 320
Ser Asn Ser Ser Leu Arg Arg Arg Leu Ile Leu Ala Asn Cys Asp Ile
                325                 330                 335
Ser Lys Ile Gly Asp Glu Asn Cys Asp Pro Glu Cys Asn His Thr Leu
            340                 345                 350
Thr Gly His Asp Gly Gly Asp Cys Arg His Leu Arg His Pro Ala Phe
        355                 360                 365
Val Lys Lys Gln His Asn Gly Val Cys Asp Met Asp Cys Asn Tyr Glu
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```
    370                 375                 380
Arg Phe Asn Phe Asp Gly Gly Glu Cys Cys Asp Pro Glu Ile Thr Asn
385                 390                 395                 400
Val Thr Gln Thr Cys Phe Asp Pro Asp Ser Pro His Arg Ala Tyr Leu
                405                 410                 415
Asp Val Asn Glu Leu Lys Asn Ile Leu Lys Leu Asp Gly Ser Thr His
            420                 425                 430
Leu Asn Ile Phe Phe Ala Lys Ser Ser Glu Glu Glu Leu Ala Gly Val
        435                 440                 445
Ala Thr Trp Pro Trp Asp Lys Glu Ala Leu Met His Leu Gly Gly Ile
    450                 455                 460
Val Leu Asn Pro Ser Phe Tyr Gly Met Pro Gly His Thr His Thr Met
465                 470                 475                 480
Ile His Glu Ile Gly His Ser Leu Gly Leu Tyr His Val Phe Arg Gly
                485                 490                 495
Ile Ser Glu Ile Gln Ser Cys Ser Asp Pro Cys Met Glu Thr Glu Pro
            500                 505                 510
Ser Phe Glu Thr Gly Asp Leu Cys Asn Asp Thr Asn Pro Ala Pro Lys
        515                 520                 525
His Lys Ser Cys Gly Asp Pro Gly Pro Gly Asn Asp Thr Cys Gly Phe
    530                 535                 540
His Ser Phe Phe Asn Thr Pro Tyr Asn Asn Phe Met Ser Tyr Ala Asp
545                 550                 555                 560
Asp Asp Cys Thr Asp Ser Phe Thr Pro Asn Gln Val Ala Arg Met His
                565                 570                 575
Cys Tyr Leu Asp Leu Val Tyr Gln Gly Trp Gln Pro Ser Arg Lys Pro
            580                 585                 590
Ala Pro Val Ala Leu Ala Pro Gln Val Leu Gly His Thr Thr Asp Ser
        595                 600                 605
Val Thr Leu Glu Trp Phe Pro Pro Ile Asp Gly His Phe Phe Glu Arg
    610                 615                 620
Glu Leu Gly Ser Ala Cys His Leu Cys Leu Glu Gly Arg Ile Leu Val
625                 630                 635                 640
Gln Tyr Ala Ser Asn Ala Ser Ser Pro Met Pro Cys Ser Pro Ser Gly
                645                 650                 655
His Trp Ser Pro Arg Glu Ala Glu Gly His Pro Asp Val Glu Gln Pro
            660                 665                 670
Cys Lys Ser Ser Val Arg Thr Trp Ser Pro Asn Ser Ala Val Asn Pro
        675                 680                 685
His Thr Val Pro Pro Ala Cys Pro Glu Pro Gln Gly Cys Tyr Leu Glu
    690                 695                 700
Leu Glu Phe Leu Tyr Pro Leu Val Pro Glu Ser Leu Thr Ile Trp Val
705                 710                 715                 720
Thr Phe Val Ser Thr Asp Trp Asp Ser Ser Gly Ala Val Asn Asp Ile
                725                 730                 735
Lys Leu Leu Ala Val Ser Gly Lys Asn Ile Ser Leu Gly Pro Gln Asn
            740                 745                 750
Val Phe Cys Asp Val Pro Leu Thr Ile Arg Leu Trp Asp Val Gly Glu
        755                 760                 765
Glu Val Tyr Gly Ile Gln Ile Tyr Thr Leu Asp Glu His Leu Glu Ile
    770                 775                 780
Asp Ala Ala Met Leu Thr Ser Thr Ala Asp Thr Pro Leu Cys Leu Gln
785                 790                 795                 800
Cys Lys Pro Leu Lys Tyr Lys Val Val Arg Asp Pro Pro Leu Gln Met
                805                 810                 815
Asp Val Ala Ser Ile Leu His Leu Asn Arg Lys Phe Val Asp Met Asp
            820                 825                 830
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Leu Asn Leu Gly Ser Val Tyr Gln Tyr Trp Val Ile Thr Ile Ser Gly
        835                 840                 845
Thr Glu Glu Ser Glu Pro Ser Pro Ala Val Thr Tyr Ile His Gly Arg
    850                 855                 860
Gly Tyr Cys Gly Asp Gly Ile Ile Gln Lys Asp Gln Gly Glu Gln Cys
865                 870                 875                 880
Asp Asp Met Asn Lys Ile Asn Gly Asp Gly Cys Ser Leu Phe Cys Arg
                885                 890                 895
Gln Glu Val Ser Phe Asn Cys Ile Asp Glu Pro Ser Arg Cys Tyr Phe
            900                 905                 910
His Asp Gly Asp Gly Val Cys Glu Glu Phe Glu Gln Lys Thr Ser Ile
        915                 920                 925
Lys Asp Cys Gly Val Tyr Thr Pro Gln Gly Phe Leu Asp Gln Trp Ala
    930                 935                 940
Ser Asn Ala Ser Val Ser His Gln Asp Gln Gln Cys Pro Gly Trp Val
945                 950                 955                 960
Ile Ile Gly Gln Pro Ala Ala Ser Gln Val Cys Arg Thr Lys Val Ile
                965                 970                 975
Asp Leu Ser Glu Gly Ile Ser Gln His Ala Trp Tyr Pro Cys Thr Ile
            980                 985                 990
Ser Tyr Pro Tyr Ser Gln Leu Ala Gln Thr Thr Phe Trp Leu Arg Ala
        995                 1000                1005
Tyr Phe Ser Gln Pro Met Val Ala Ala Ala Val Ile Val His Leu Val
    1010                1015                1020
Thr Asp Gly Thr Tyr Tyr Gly Asp Gln Lys Gln Glu Thr Ile Ser Val
1025                1030                1035                1040
Gln Leu Leu Asp Thr Lys Asp Gln Ser His Asp Leu Gly Leu His Val
                1045                1050                1055
Leu Ser Cys Arg Asn Asn Pro Leu Ile Ile Pro Val Val His Asp Leu
            1060                1065                1070
Ser Gln Pro Phe Tyr His Ser Gln Ala Val Arg Val Ser Phe Ser Ser
        1075                1080                1085
Pro Leu Val Ala Ile Ser Gly Val Ala Leu Arg Ser Phe Asp Asn Phe
    1090                1095                1100
Asp Pro Val Thr Leu Ser Ser Cys Gln Arg Gly Glu Thr Tyr Ser Pro
1105                1110                1115                1120
Ala Glu Gln Ser Cys Val His Phe Ala Cys Glu Lys Thr Asp Cys Pro
                1125                1130                1135
Glu Leu Ala Val Glu Asn Ala Ser Leu Asn Cys Ser Ser Ser Asp Arg
            1140                1145                1150
Tyr His Gly Ala Gln Cys Thr Val Ser Cys Arg Thr Gly Tyr Val Leu
        1155                1160                1165
Gln Ile Arg Arg Asp Asp Glu Leu Ile Lys Ser Gln Thr Gly Pro Ser
    1170                1175                1180
Val Thr Val Thr Cys Thr Glu Gly Lys Trp Asn Lys Gln Val Ala Cys
1185                1190                1195                1200
Glu Pro Val Asp Cys Ser Ile Pro Asp His His Gln Val Tyr Ala Ala
                1205                1210                1215
Ser Phe Ser Cys Pro Glu Gly Thr Thr Phe Gly Ser Gln Cys Ser Phe
            1220                1225                1230
Gln Cys Arg His Pro Ala Gln Leu Lys Gly Asn Asn Ser Leu Leu Thr
        1235                1240                1245
Cys Met Glu Asp Gly Leu Trp Ser Phe Pro Glu Ala Leu Cys Glu Leu
    1250                1255                1260
Met Cys Leu Ala Pro Pro Pro Val Pro Asn Ala Asp Leu Gln Thr Ala
1265                1270                1275                1280
Arg Cys Arg Glu Asn Lys His Lys Val Gly Ser Phe Cys Lys Tyr Lys
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                1285                1290                1295
Cys Lys Pro Gly Tyr His Val Pro Gly Ser Ser Arg Lys Ser Lys Lys
            1300                1305                1310
Arg Ala Phe Lys Thr Gln Cys Thr Gln Asp Gly Ser Trp Gln Glu Gly
        1315                1320                1325
Ala Cys Val Pro Val Thr Cys Asp Pro Pro Pro Pro Lys Phe His Gly
    1330                1335                1340
Leu Tyr Gln Cys Thr Asn Gly Phe Gln Phe Asn Ser Glu Cys Arg Ile
1345                1350                1355                1360
Lys Cys Glu Asp Ser Asp Ala Ser Gln Gly Leu Gly Ser Asn Val Ile
                1365                1370                1375
His Cys Arg Lys Asp Gly Thr Trp Asn Gly Ser Phe His Val Cys Gln
            1380                1385                1390
Glu Met Gln Gly Gln Cys Ser Val Pro Asn Glu Leu Asn Ser Asn Leu
        1395                1400                1405
Lys Leu Gln Cys Pro Asp Gly Tyr Ala Ile Gly Ser Glu Cys Ala Thr
    1410                1415                1420
Ser Cys Leu Asp His Asn Ser Glu Ser Ile Ile Leu Pro Met Asn Val
1425                1430                1435                1440
Thr Val Arg Asp Ile Pro His Trp Leu Asn Pro Thr Arg Val Glu Arg
                1445                1450                1455
Val Val Cys Thr Ala Gly Leu Lys Trp Tyr Pro His Pro Ala Leu Ile
            1460                1465                1470
His Cys Val Lys Gly Cys Glu Pro Phe Met Gly Asp Asn Tyr Cys Asp
        1475                1480                1485
Ala Ile Asn Asn Arg Ala Phe Cys Asn Tyr Asp Gly Gly Asp Cys Cys
    1490                1495                1500
Thr Ser Thr Val Lys Thr Lys Lys Val Thr Pro Phe Pro Met Ser Cys
1505                1510                1515                1520
Asp Leu Gln Gly Asp Cys Ala Cys Arg Asp Pro Gln Ala Gln Glu His
                1525                1530                1535
Ser Arg Lys Asp Leu Arg Gly Tyr Ser His Gly
            1540                1545
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<210> 3
<211> 405
<212> DNA
<213> Unknown

<220>
<223> Light Chain nucleic acid sequence

<400> 3

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gacatccaga tgacacagtc tccatcctcc ctgtctgcat ctgttggaga cagagtcacc     120
atcacttgcc gggctagtca gcgcattagt agttatgtaa attggtatca acagaaacca     180
gggaaagccc ctaagctcct gatctattct gcatccagtt tacaaagtgg ggtcccatca     240
aggttcagtg gcagtgtatc tgggacagag ttcactctca ccatcagcag tctgcaacct     300
gaggattttg caacttacta ctgtcaacag agttaccgta ccctccttt ttttggccag     360
gggaccaagc tggaggtcaa acgaactgtg gctgcaccat ctgtc                     405
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<210> 4
<211> 405
<212> DNA
<213> Unknown

<220>

<223> Light Chain nucleic acid

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ctctcctgca gggccagtca gagtgttagt aggaacttag cctggtacca gcagaaacct 180
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg tatcccagcc 240
aggttcagtg gcagtgggtc tcggacagag ttcactctca ccatcagcag cctgcagtct 300
gaagattttg cagtttatca ctgtcagcag tataatagca ggcctctcac tttcggcgga 360
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<210> 5
<211> 405
<212> DNA
<213> Unknown

<220>
<223> Light Chain nucleic acid sequence

<400> 5
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacaa 60
gacatccaga tgacccagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 120
ctctcctgca gggccagtca gagtgttcgc agctacttag cctggtacca gcagaaacca 180
ggccaggctc ccaggctcct catctatgat gcatccacca gggccactgg tatcccagcc 240
agattcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 300
gaagattttg cagtttatta ctgtcagcag tataataact ggcctccgac gttcggccaa 360
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<210> 6
<211> 405
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 6
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gacatccaga tgacccagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 120
ctctcctgca gggccagtca ggatgttaac agatacttag cctggtacca gcagaaacct 180
ggccagcctc ccaggctcct catctatggt gcctctacca gggccactgg tatcccagcc 240
aggatcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 300
gaagattttg cagtttatta ctgtcagcag tatcataact ggcccctcac tttcggcgga 360
gggaccaagg tggagatcaa acgaactgtg gctgcaccat ctgtc 405

<210> 7
<211> 405
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 7
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacaa 60
gacatccaga tgacccagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 120

ctctcctgca gggccagtca gagtgttagc agctacttag cctggtacca acagaaacct 180
ggccaggctc ccaggctcct catctatggt gcatccagca gggccactgg catcccagac 240
aggttcagtg gcagtgggtc tgggacagac ttcactctca ccatcggcag actggagcct 300
gaagattttg cagtgtatta ctgtcagcag tatagtagtt caccggtcac cttcggccaa 360
gggacacgac tggagattaa acgaactgtg gctgcaccat ctgtc 405

<210> 8
<211> 402
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

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gacatccaga tgacccagtc tccagccacc ctgtctttgt ctccagggga aagagccacc 120
ctctcctgca gggccagtca gagtgttagc aggtacttag cctggtacca acagaaacct 180
ggccaggctc ccaggctcct catctatggt gcatccacca gggccactgg tatcccagcc 240
aggttcagtg gcagtgggtc tgggacagag ttcactctca ccatcagcag cctgcagtct 300
gaagattttg cagtttatta ctgtcagcag tataataact ggccttcttt cggcggaggg 360
accaaggtgg agatcaaacg aactgtggct gcaccatctg tc 402

<210> 9
<211> 408
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 9
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gacatccaga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 120
ctctcctgca gggccagtca gagtattagc agcagctact tagcctggta ccagcagaaa 180
cctggccagg ctcccaggct cctcatctat gctgcagcca gcagggccac tggcatccca 240
gacaggttca gtggcattgg gtctgggaca gacttcactc tcaccatcag cagcctagag 300
cctgaagatt ttgcagttta ttactgtcag cagcgtagca actggcctct cactttcggc 360
ggagggacca aggtggagat caaacgaact gtggctgcac catctgtc 408

<210> 10
<211> 408
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 10
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gacatccaga tgacccagtc tccaggcacc ctgtctttgt ctccagggga aagagccacc 120
ctctcctgca gggccagtca gagtgttagc agcagctact tagcctggta ccagcagaaa 180
cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 240
gacaggttca gtggcagtgg gtctgggaca gacttcactc tcaccatcag cagactggag 300
cctgaagatt ttgcagtgta ttactgtcag cagtatggta gctcaccgtg gacgttcggc 360
caagggacca aggtggaaat caaacgaact gtggctgcac catctgtc 408

<210> 11
<211> 405
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 11
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacaa 60
gacatccaga tgacccagtc tccatcctca ctgtctgcat ctgtaggaga cagagtcacc 120
atcacttgtc gggcgagtca ggacattagc aattatttag cctggtttca gcagaaacca 180
gggagagccc ctaagtccct gatctatggt gcatccagtt tgcaaactgg ggtcccatca 240
aagttcagcg gcagtggatc tgggacagag ttcactctca ccatcagcgg cctgcagcct 300
gaagatgttg caacttatta ctgccatcag tataatcatt accctcccac tttcggcgga 360
gggaccaagg tggagatcaa acgaactgtg gctgcaccat ctgtc 405

<210> 12
<211> 405
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 12
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gacatccaga tgacccagtc tccatcctca ctgtctgcat ctgtaggaga cagagtcacc 120
atcacttgtc gggcgagtca ggacattagg aattatttag cctggtttca gcagaaacca 180
ggggaagccc ctaagtccct gatctatgct gcgtccagtt tgcagagtgg ggtctcatca 240
aacttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 300
gaagattttg caacttatta ctgccagcag tatcataggt acccgaggac ttttggtcag 360
gggaccaagc tggagatcaa acgaactgtg gctgcaccat ctgtc 405

<210> 13
<211> 560
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 13
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacaa 60
gacatccaga tgacccagtc tccatcctca ttctctgcat ctacaggaga cagagtcacc 120
atcacttgtc gggcgagtca gggtattagc agttatttag cctggtatca gcaaaaacca 180
gggaaagccc ctaagctcct gatctatgct gcatccactt tgcaaagtgg ggtcccatca 240
aagttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 300
gaagattttg caacttatta ctgccaacag tataatagtt acccctctcac cttcggccaa 360
gggacacgac tggagattaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcca 420
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 480
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag 540
gagagtgtca cagagcagga 560

<210> 14
<211> 405
<212> DNA

<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 14
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacaa 60
gacatccaga tgacccagtc tccatcctcc ctgtatgcat ctgtaggaga cagagtcacc 120
atcacttgcc gggcaagtca gggcattaga aatgagttag gttggtatca gcagaaacca 180
gggaaagccc ctcagcgcct gatctatgat gcatccactt tgcagagtgg ggtcccatca 240
agattcagcg gcggtggatc taggacagaa ttcactctca ccatcagcag cctggaacct 300
catgattttg gaacttatta ctgccaacaa tatgccagtt atccgctcac tttcggcgga 360
gggaccaagg tggagatcaa acgaactgtg gctgcaccat ctgtc 405

<210> 15
<211> 405
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 15
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacaa 60
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 120
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 180
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 240
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 300
gaagattttg caacttacta ctgtcaacag agttacagta ccaggtggac gttcggccaa 360
gggaccaagg tggaaatcaa acgaactgtg gctgcaccat ctgtc 405

<210> 16
<211> 405
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 16
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacaa 60
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 120
atcacttgcc gggcaagtca gagcattagc agctatttaa attggtatca gcagaaacca 180
gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 240
aggttcagtg gcagtggatc tgggacagat ttcactctca ccatcagcag tctgcaacct 300
gaagattttg caacttacta ctgtcaacag agttacagta ccaggtggac gttcggccaa 360
gggaccaagg tggaaatcaa acgaactgtg gctgcaccat ctgtc 405

<210> 17
<211> 560
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 17

gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacaa 60
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 120
atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtttca gcagaaacca 180
gggaaagccc ctaggcgcct gatctggggt gcatccactt tacaaagtgg ggtcccatca 240
aggttcagcg gcagtggatc tggcacagat ttcactctca ccatcagcag cctgcagcct 300
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gggaccaagc tggagatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcca 420
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 480
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg taactcccag 540
gagagtgtca cagagcagga 560

<210> 18
<211> 405
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 18
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gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 120
atcacttgcc gggcaagtca gggcattaga cattatttag gctggtatca gcagaaacca 180
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaatttgg ggtcccagca 240
aggttcagcg gcagtggatc tgggacggaa ttcactctca caatcagcag cctgcagcct 300
gaagattttg caacttatta ctgtctacaa cacaatagtt tccctccggc gttcggccaa 360
gggaccaagg tggaaatcaa acgaactgtg gctgcaccat ctgtc 405

<210> 19
<211> 405
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 19
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacaa 60
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 120
atcacttgcc gggcaagtca gggcattaga cattatttag gctggtatca gcagaaacca 180
gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaatttgg ggtcccagca 240
aggttcagcg gcagtggatc tgggacggaa ttcactctca caatcagcag cctgcagcct 300
gaagattttg caacttatta ctgtctacaa cacaatagtt tccctccggc gttcggccaa 360
gggaccaagg tggaaatcaa acgaactgtg gctgcaccat ctgtc 405

<210> 20
<211> 405
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 20
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacaa 60
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 120
atcacttgcc gggcaagtca gggcattaga cattatttag gctggtatca gcagaaacca 180

gggaaagccc ctaagcgcct gatctatgct gcatccagtt tgcaatttgg ggtcccagca 240
aggttcagcg gcagtggatc tgggacggaa ttcactctca caatcagcag cctgcagcct 300
gaagattttg caacttatta ctgtctacaa cacaatagtt tccctccggc gttcggccaa 360
gggaccaagg tggaaatcaa acgaactgtg gctgcaccat ctgtc 405

<210> 21
<211> 405
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 21
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacaa 60
gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 120
atctcttgcc gcgcaagtca gaacattagg aactctgtaa attggtatca gcagaaacca 180
gggaaagccc ctaagctcct gatctatgct acatacgatt tgcagagtgg cgccccatca 240
tacttcagtg gcagtggatc tgggacagat ttcactctca ccatcaccag tctgcaacct 300
gaagattttg caacttacta ctgtcaacag agttacagtt tccctcgaac gttcggccaa 360
gggaccaagg tggaaatcag acgaactgtg gctgcaccat ctgtc 405

<210> 22
<211> 405
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 22
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacaa 60
gacatccaga tgacccagtc tccatcttcc gtgtctgcat ctgtaggaga cagaatcgcc 120
atcacttgtc gggcgagtca gggtattagc acctggttag cctggtatca gcagagacca 180
gggagagccc ctaagctcct gatctatgct gcatccactt tgcaaagcgg agtcccatca 240
aggttcagcg gcagtggatc tgggacagat ttcactctca ccatcagcag cctgcagcct 300
gaagattttg caacttactt ttgtcaacag gctgacagtt tccccctgac ttttggccag 360
gggaccaaac tggagatcaa acgaactgtg gctgcaccat ctgtc 405

<210> 23
<211> 405
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 23
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacaa 60
gacatccaga tgacccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 120
atcacttgtc gggcgagtcg gggtattagc agatggttag cctggtatca gcagaaacca 180
gggaaagccc ctaagctcct gatctatggt gcatccactt tgcaaaaagg ggtcccatca 240
aggttcaccg gcagtggatc tgggacagat ttcactctca ccatcaccag cctgcagcct 300
gaagattttg caacttacta ttgtcaacag ggtaacagtt tcccattcac tttcggccct 360
gggaccaaag tggatatcaa acgaactgtg gctgcaccat ctgtc 405

<210> 24

<211> 405
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 24
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacaa 60
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atcacttgtc gggcgagtcg gggtattagc agatggttag cctggtatca gcagaaacca 180
gggaaagccc ctaagctcct gatctatggt gcatccactt tgcaaaaagg ggtcccatca 240
aggttcaccg gcagtggatc tgggacagat ttcactctca ccatcaccag cctgcagcct 300
gaagattttg caacttacta ttgtcaacag ggtaacagtt tcccattcac tttcggccct 360
gggaccaaag tggatatcaa acgaactgtg gctgcaccat ctgtc 405

<210> 25
<211> 405
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 25
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacaa 60
gacatccaga tgacccagtc tccgtcttcc gtgtctgcat ctgtaggaga cagagtcacc 120
atcacttgtc gggcgagtca gggtattagc agctggttag cctggtatca gcagaagcca 180
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agattcagcg gcagtggatc tgggacagat tacactctca ccatcaccag cctacagcct 300
gaagattttg caacttactt ttgtcaacag gttaattctt tccctcgtac ttttggccag 360
gggaccaagc tgaatatcaa acgaactgtg gctgcaccat ctgtc 405

<210> 26
<211> 539
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 26
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacag 60
agcgaattga ctcagataag ggccagggct ctggagtccc cagccgcttc tctggatcca 120
aagatgctgc agccaatgca ggggttttac tcatctccgg cctccagccc gaggatgatg 180
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gagccgtgac agtggcctgg aaggcagata gcagccccgt caaggcggga gtggagacca 420
ccacaccctc caaacaaagc aacaacaagt acgcggccag cagctatcta agcctgacgc 480
ctgagcagtg gaagtcccac agaagctaca gctgccaggt cacgcatgaa gggagcacc 539

<210> 27
<211> 411
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 27
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacag 60
agcgaattga ctcagccacc ctcagcgtct gcgacccccg ggcagagggt caccatctct 120
tgttctggaa gcagctccaa catcggacgt aatttggtat actggtacca gcagctccca 180
ggaacggccc ccaaactcct catctatagt aataatcagc ggccctcagg ggtccctgac 240
cgattctctg gctccaagtc tggcacctca gcctccctgg ccatcagtgg gctccggtcc 300
gaggaggagg ctgattatta ctgtgcagca tgggatgaca gcctgagtgg ttgggtgttc 360
ggcggaggga ccaggctgac cgtcctaggt cagcccaagg ctgcccccctc g 411

<210> 28
<211> 411
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 28
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacag 60
agcgctttga ctcagccacc ctcagcgtct gggacccccg ggcagagggt caccatctct 120
tgttctggaa gcagctccaa catcggaagt aattttgtat actggtacca ccatctccca 180
ggaacggccc ccaaactcct catctatagg aataatcagc ggccctcagg ggtccctgac 240
cgattctctg gctccaagtc tggcacctca gcctccctgg ccatcagtgg gctccggtcc 300
gaggatgagg ctgattatta ctgtgcagca tgggatgaca gcctgagtgg ggtggtattc 360
ggcggaggga ccaagctgac cgtcctaggt cagcccaagg ctgcccccctc g 411

<210> 29
<211> 414
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 29
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacag 60
agcgctttga ctcagcctgc ctccgtgtct gggtctcctg gacagtcgat caccatctcc 120
tgcactggaa ccagcagtga cgttggttat tatgactatg tctcctggta ccagcaccac 180
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gctgatgacg aggctgatta ttactgcagc tcatatacaa gcggcagcac ccgttatgtc 360
ttcggacctg ggaccaaggt caccgtccta ggtcagccca aggccaaccc cact 414

<210> 30
<211> 414
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 30
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacag 60
agcgctttga ctcagcctgc ctccgtgtct gggtctcctg gacagtcgat caccatctcc 120

tgcactggaa ccagcagtga cgttggttat tatgactatg tctcctggta ccagcaccac 180
ccaggcaaag cccccaaact catcatttat gatgtcactt ctcggccctc aggggtctct 240
tctcatttct ctggctccaa gtctggcaac acggcctccc tgaccatctc tgggctccag 300
gctgatgacg aggctgatta ttactgcagc tcatatacaa gcggcagcac ccgttatgtc 360
ttcggacctg ggaccaaggt caccgtccta ggtcagccca aggccaaccc cact 414

<210> 31
<211> 414
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 31
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacag 60
agcgtcttga ctcagactgc ctccgtgtct gggtctcctg gacagtcgat caccatctcc 120
tgcactggaa ccagcagtga cattggtgat tatgagtatg tctcctggta ccaacaacac 180
ccaggcaaag cccccaaagt cattctttat gaggtcagta atcggccctc aggggtccct 240
gatcgcttct ctggctccaa gtctggcaac acggcctcac tgaccatctc tggactccag 300
gctgaggacg aggctgatta ttactgtggt tcatatagaa agagcagcac tccttatgtc 360
ttcggaactg ggaccaaggt cagcgtccta ggtcagccca aggccaaccc cact 414

<210> 32
<211> 414
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 32
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacag 60
agcgtcttga ctcagactgc ctccgtgtct gggtctcctg gacagtcgat caccatctcc 120
tgcactggaa ccagcagtga cattggtgat tatgagtatg tctcctggta ccaacaacac 180
ccaggcaaag cccccaaagt cattctttat gaggtcagta atcggccctc aggggtccct 240
gatcgcttct ctggctccaa gtctggcaac acggcctcac tgaccatctc tggactccag 300
gctgaggacg aggctgatta ttactgtggt tcatatagaa agagcagcac tccttatgtc 360
ttcggaactg ggaccaaggt cagcgtccta ggtcagccca aggccaaccc cact 414

<210> 33
<211> 560
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 33
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacag 60
agcgtcttga ctcagccacc ctcagcgtct gggacccccg ggcagagggt caccatctct 120
tgttctggaa gcagctccaa catcgaaagt aatactgtaa cctggtacca gcaactccca 180
ggaacggccc ccaaactcct catctatagt gatgatcagc ggccctcagg ggtccctgac 240
cgattctctg gatccaagtc tggcacctca gcctccctgg ccatcagtgg gctccagtct 300
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ggcggaggga ccaagctgac cgtcctgagt cagcccaagg ctgcccctc ggtcactctg 420
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gacttctacc cgggagccgt gacagtggcc tggaaggcag atagcagccc cgtcaaggcg 540
ggagtggaga ccaccacacc 560

<210> 34
<211> 429
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 34
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacag 60
agcgtcttga ctcagccacc ttatgcatca gcctccctgg gagcctcggt cacactcacc 120
tgcaccctga gcagcggcta cagtaattat aaagtggact ggtatcagca aagaccaggg 180
aagggccccc agtttgtgat gcgagtgggc agtggcggga ttgtgggatc aaaggggat 240
ggcatccctg atcgcttttc agtcctgggc tcaggcctgt atcggtatct gaccatcaag 300
aacatccagg aagaggatga gagtgactac tattgtgggg cagaccatgg cagggggggc 360
accttcgtgt gggtgttcgg cggagggacc aaactgaccg tcctaggtca gcccaaggct 420
gcccccctcg 429

<210> 35
<211> 411
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 35
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacag 60
agcgtcttga ctcagcctgc ctccgtgtct gggtctcctg gacagtcgat caccatctcc 120
tgcactggaa ccagcagtga cgttggtggt tataactatg tctcctggta ccaacgacac 180
ccaggcaaag cccccaaact cattatttat gatgtcacta atcgcccctc aggggcttct 240
cgtcacttct ctggctccaa gtctggcaac acggcctccc tgaccatctc tggtctccag 300
gccgacgacg aggctgatta ttattgcgtt tcatttacaa acagcaatac tttcgtcttc 360
ggaagtggga ccagggtcac cgtcctcggt cagcccaagg ccaaccccac t 411

<210> 36
<211> 417
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 36
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacag 60
gacatcgtca tgactcaaac ccctcctagt ttaccggtta acccgggtga acctgcctcc 120
atctcctgca agtctagtca gagcctcctg cagagtaatg gatacaacta cttggattgg 180
tacctgcaga agccagggca gtctccacag ctcctgatct atttgggttc taatcgggcc 240
tccggggtcc ctgacaggtt cagtggcagt ggatcaggca cagattttac actgaagatc 300
agcagggtgg aggctgagga tgttggcatt tattactgca tgcaagctct acacactcct 360
cccttcggcc aagggacacg actggagatt aaacgaactg tggctgcacc atctgtc 417

<210> 37
<211> 405

<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 37
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacag 60
tacgaattga ctcagccacc ctcagtgtcc gtgtccccgg gacagacagc caccattatc 120
tgctctggag ataaattggg ggataaatat gttgcctggt atcagcagaa gccaggccag 180
tcccctgtgc tggtcgtcta tgaagataac aagcggccct cagggatccc tgagcgaatt 240
tctggctcca actctgggaa cacagccact ctgaccatca gtgggaccca ggctatggat 300
gacgctgact attactgtca ggcgtgggac agaagcactg accattatgt cttcggaact 360
gggaccaagg tcaccgtcct aggtcagccc aaggccaacc ccact 405

<210> 38
<211> 414
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 38
gtgaaaaaat tattattcgc aattccttta gttgttcctt tctattctca cagtgcacag 60
tacgaattga ctcagcctgc ctccgtgtct gggtctcctg gacagtcgat caccatctcc 120
tgcactggaa ccagcagcga cgttggtggt tataactatg tctcctggta ccaacagcac 180
ccaggcaaag cccccaaact catgatttat gaggtcagta atcggccctc aggggtttct 240
aatcgcttct ctggctccaa gtctgacaat acggcctccc tgaccatctc tggactccag 300
gctgaggacg aggctgatta ttactgtggt tcatatagaa agagcagcac tccttatgtc 360
ttcggaactg ggaccaaggt cagcgtccta ggtcagccca aggccaaccc cact 414

<210> 39
<211> 413
<212> DNA
<213> Artificial Sequence

<220>
<223> Light Chain nucleic acid sequence

<400> 39
gtgaaaaaat tatttattcg caatttcctt tagttgttcc tttctattct cacagtgcac 60
agagcgcttt gactcagcca tcctcagcgt ctgggacccc cgggcagagg gtcagtatct 120
cttgttctgg aagcagctac aacatcggag tttatgatgt atactggtac cagcagctcc 180
caggaacggc ccccaaactc ctcatctata ccaataatca gcggccctca ggggtccctg 240
accgattctc tggctccaag tctggcacct cagcctccct ggccatcagt gggctccagt 300
ctgaggatga ggctgattat tactgtgcag catgggatga cagtctgagt ggttgggtgt 360
tcggcggagg gaccaaggtg accgtcctag gtcagcccaa ggctgccccc tcg 413

<210> 40
<211> 387
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 40
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct ctttaccaga tgctttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttctggt atcgtttctt ctggtggcct tactggttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagacataat 300
agggctattg gcacctttga ctactggggc cagggaaccc tggtcaccgt ctcaagcgcc 360
tccaccaagg gcccatcggt cttcccg 387

<210> 41
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 41
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct tggtacttta tgaattgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttct atctatcctt ctggtggcta tactatgtat 180
gctgactctg ttaaaggtcg cttcactatc tctagagaca actctaagaa gactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagtgacttt 300
ggtagctggg gccagggaac cctggtcacc gtctcaagcg cctccaccaa gggcccatcg 360
gtcttcccg 369

<210> 42
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 42
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct tggtaccgta tgaattgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttct atcgttcctt ctggtggcta tactcgttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagtgacttt 300
ggtagctggg gccagggaac cctggtcacc gtctcaagcg cctccaccaa gggcccatcg 360
gtcttcccg 369

<210> 43
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 43
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct cgttactcta tgaattgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttat atctctcctt ctggtggcat gactaagtat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gaataccctt 300

ggctactggg gccagggaac cctggtcacc gtctcaagcg cctccaccaa gggcccatcg 360
gtcttcccg 369

<210> 44
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 44
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct tcttaccgta tgaattgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttctggt atcgttcctt ctggtggcaa gacttttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagtgacttt 300
ggtagctggg gccagggaac cctggtcacc gtctcaagcg cctccaccaa gggcccatcg 360
gtcttcccg 369

<210> 45
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 45
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct aattactcta tggattgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttgg atctctcctt ctggtggcct tactacttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagtgacttt 300
ggtagctggg gccagggaac cctggtcacc gtctcaagcg cctccaccaa gggcccatcg 360
gtcttcccg 369

<210> 46
<211> 393
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 46
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct cgttaccata tggagtgggt tcgccaagct 120
catggtaaag gtttggagtg ggtttcttat atctctcctt ctggtggcaa gactctttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagacatttg 300
ggatatggtt cggggagtta ctttgactac tggggccagg gaaccctggt caccgtctca 360
agcgcctcca ccaagggccc atcggtcttc ccg 393

<210> 47
<211> 390
<212> DNA

<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 47
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct ttttacccta tgccttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttat atctctcctt ctggtggcga tactacttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactttctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagaggggg 300
tcctatagca gcagttggta cggctactgg ggccagggaa ccctggtcac cgtctcaagc 360
gcctccacca agggcccatc ggtcttcccg 390

<210> 48
<211> 387
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 48
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct aagtacccta tgttttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttgg atctctcctt ctggtggcaa gactgtttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gaaagattgc 300
agaggggtt gcagtggtgg aagttggggc cagggaaccc tggtcaccgt ctcaagcgcc 360
tccaccaagg gcccatcggt cttcccg 387

<210> 49
<211> 393
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 49
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct gcttacaata tgccttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttat atctcttctt ctggtactgg ttatgctgac 180
tccgttaaag gtcgcttcac tatctctaga gacaactcta agaatactct ctacttgcag 240
atgaacagct taagggctga ggacactgca gtctactatt gtgcgagaga actgggtagt 300
gggagctact acccgggata cttccagcac tggggccagg gcaccctggt caccgtctca 360
agcgcctcca ccaagggccc atcggtcttc ccg 393

<210> 50
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 50

gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct tggtacacta tggtttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttct atctattctt ctggtggctt tacttggtat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagtgacttt 300
ggtagctggg gccagggaac cctggtcacc gtctcaagcg cctccaccaa gggcccatcg 360
gtcttcccg 369

<210> 51
<211> 420
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 51
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct gattacaaga tgccttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttct atctggtctt ctggtggcac tactgagtat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagagaggaa 300
attggacgat attttgactg gtttttaggg aactactact actacggtat ggacgtctgg 360
ggccaaggga ccacggtcac cgtctcaagc gcctccacca agggcccatc ggtcttcccg 420

<210> 52
<211> 411
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 52
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct acttacttta tgcgttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttat atcgttcctt ctggtggcaa tactctttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc aagagaagag 300
tgggacgtat tactatggtt cggggagtta agtgctgctt ttgatatctg gggccaaggg 360
acaatggtca ccgtctcaag cgcctccacc aagggcccat cggtcttccc g 411

<210> 53
<211> 369
<212> DNA
<213> Unknown

<220>

<223> Light Chain nucleic acid sequence

<400> 53
ttctattctc acagtgcaca gagcgaattg actcagccac cctcagcgtc tgggaccccc 60
gggcagaggg tcaccatctc ttgttctgga agcagctcca acatcggaag taatactgta 120
aactggtacc agcagctccc aggaacggcc cccaaactcc tcatctatag taataattac 180
cggccctcag gggtccctga ccgattctct ggctccaagt ctggcacctc agcctccctg 240
gccatcagtg ggctccagtc tgacgatgag gctgaatatc tctgtgcagc atgggatgac 300

agtctgaatg gtccggtgtt cggtggaggg accaaggtga ccgtcctagg tcagcccaag 360
gctgccccc 369

<210> 54
<211> 396
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 54
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct ttttacggta tgccttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttctggt atctatcctt ctggtggcgt tactcgttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gaagacgtat 300
agcagcagct ggtacgggtg gtactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcaagcgcct ccaccaaggg cccatcggtc ttcccg 396

<210> 55
<211> 396
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 55
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct ccttacgata tgtggtgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttat atctcttctt ctggtggcaa gactatgtat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagattaggt 300
ggtaactccc actactacta cggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcaagcgcct ccaccaaggg cccatcggtc ttcccg 396

<210> 56
<211> 396
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 56
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct ccttacgata tgtggtgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttat atctcttctt ctggtggcaa gactatgtat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagattaggt 300
ggtaactccc actactacta cggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcaagcgcct ccaccaaggg cccatcggtc ttcccg 396

<210> 57
<211> 390
<212> DNA

<213> Unknown

<220>
<223> Heavy Chain nucleic acid sequence

<400> 57
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct tcttacgtta tgatttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttgg atctcttctt ctggtggcta tacttcttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actactgtgc gaaagggccc 300
gggacccggg gtgactactg gggccaggga accctggtca ccgtctcaag cgcctccacc 360
aagggcccat cggtcttccc gctagcaccc 390

<210> 58
<211> 351
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 58
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct ccttacacta tgaattgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttctcgt atcggttctt ctggtgttta ctcattatgc 180
tgactccgtt aaaggtcgct tcactatctc tagagacaac tctaagaata ctctctactt 240
gcagatgaac agcttaaggg ctgaggacac tgcagtctac tattgtgcga gacccaccct 300
ctattggtat ggttcgggga gctattacta ctttgactac tggggccagg g 351

<210> 59
<211> 369
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 59
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct aattacgcta tggattgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttat atctctcctt ctggtggcta tactcgttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagtgacttt 300
ggtagctggg gccagggaac cctggtcacc gtctcaagcg cctccaccaa gggcccatcg 360
gtcttcccg 369

<210> 60
<211> 396
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 60
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60

tcttgcgctg cttccggatt cactttctct ggttactgga tgtcttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttctgtt atccgtcctt ctggtggcaa gactggttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actttaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagagtaagg 300
gcgcccggct actactacta cggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcaagcgcct ccaccaaggg cccatcggtc ttcccg 396

<210> 61
<211> 396
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 61
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct ggttactgga tgtcttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttctgtt atccgtcctt ctggtggcaa gactggttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actttaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagagtaagg 300
gcgcccggct actactacta cggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcaagcgcct ccaccaaggg cccatcggtc ttcccg 396

<210> 62
<211> 351
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 62
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct tcttacctta tgacttgggt tgccaagctc 120
ctggtaaagg tttggagtgg gtttcttcta tctatccttc tggtggccat actggttatg 180
ctgactccgt taaaggtcgc ttcactatct ctagagacaa ctctaagaat actctctact 240
tgcagatgaa cagcttaagg gctgaggaca ctgcagtcta ctattgtgcg agagaggggg 300
gatattgtag tagtaccagc tgctatgttg actactgggg ccagggaacc c 351

<210> 63
<211> 414
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 63
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct cgttacggta tgaagtgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttat atctatcctt ctggtggcta tactcgttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagagcccgc 300
gggcatagca gcagctggta caatcattac tactactact acatggacgt ctggggcaaa 360
gggaccacgg tcaccgtctc aagcgcctcc accaagggcc catcggtctt cccg 414

<210> 64
<211> 393
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 64
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct tggtaccata tgcgttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttctatc tatccttctg gtggcgttac ttcttatgct 180
gactccgtta aaggtcgctt cactatctct agagacaact ctaagaatac tctctacttg 240
cagatgaaca gcttaagggc tgaagacact gcagtctact attgtgcgag agaaacaagt 300
ggctggtata gggatcgctg gttcgacccc tggggccagg gaaccctggt caccgtctca 360
agcgcctcca ccaagggccc atcggtcttc ccg 393

<210> 65
<211> 384
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 65
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct cagtacaaga tgaattgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttat atctctcctt ctggtggcta tactgcttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagagatgta 300
gtggctgggc cgtttgacta ctggggccag ggaaccctgg tcaccgtctc aagcgcctcc 360
accaagggcc catcggtctt cccg 384

<210> 66
<211> 393
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 66
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct gattactata tgcgttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttctcgt atctatcctt ctggtggcca tacttggtat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagacatagg 300
gcgggtagca gtggctggta ctctgactac tggggccagg gaaccctggt caccgtctca 360
agcgcctcca ccaagggccc atcggtcttc ccg 393

<210> 67
<211> 393
<212> DNA
<213> Artificial Sequence

<220>

<223> Heavy Chain nucleic acid sequence

<400> 67
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct gattactata tgcgttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttctcgt atctatcctt ctggtggcca tacttggtat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagacatagg 300
gcgggtagca gtggctggta ctctgactac tggggccagg gaaccctggt caccgtctca 360
agcgcctcca ccaagggccc atcggtcttc ccg 393

<210> 68
<211> 414
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 68
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct tattaccata tgtggtgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttctgtt atcgttcctt ctggtggcgg tactcagtat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagagatgga 300
catagcagca gctggtacgg tgggggagcc cactactacg gtatggacgt ctggggccaa 360
gggaccacgg tcaccgtctc aagcgcctcc accaagggcc catcggtctt cccg 414

<210> 69
<211> 414
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 69
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct tattaccata tgtggtgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttctgtt atcgttcctt ctggtggcgg tactcagtat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagagatgga 300
catagcagca gctggtacgg tgggggagcc cactactacg gtatggacgt ctggggccaa 360
gggaccacgg tcaccgtctc aagcgcctcc accaagggcc catcggtctt cccg 414

<210> 70
<211> 396
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 70
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct ccttaccgta tggattgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttat atctatcctt ctggtggctt tactccttat 180

gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactttctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gaaaggttca 300
acgggatacc gctactacta cggtatggac gtctggggcc aagggaccac ggtcaccgtc 360
tcaagcgcct ccaccaaggg cccatcggtc ttcccg 396

<210> 71
<211> 408
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 71
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct tacaagatga tgtgggttcg ccaagctcct 120
ggtaaaggtt tggagtgggt ttcttatatc tcttcttctg gtggcattac tacttatgct 180
gactccgtta aaggtcgctt cactatctct agagacaact ctaagaatac tctctacttg 240
cagatgaaca gcttaagggc tgaggacact gcagtctact attgtgcgag agacccgact 300
tacgattttt ggagtggtta ttactactac tactacatgg acgtctgggg caaagggacc 360
acggtcaccg tctcaagcgc ctccaccaag ggcccatcgg tcttcccg 408

<210> 72
<211> 414
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 72
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct ctttaccata tggattgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttctgtt atctatcctt ctggtggcgg tactccttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagacgggta 300
ggatattgta gtggtggtag ctgctactac tactactact acatggacgt ctggggcaaa 360
gggaccacgg tcaccgtctc aagcgcctcc accaagggcc catcggtctt cccg 414

<210> 73
<211> 396
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 73
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct tggtactgga tgaattgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttct atctattctt ctggtggcta tacttcttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagagttcgg 300
gatattttga ctggtcccta ctactttgac tactggggcc agggaaccct ggtcaccgtc 360
tcaagcgcct ccaccaaggg cccatcggtc ttcccg 396

<210> 74

<211> 393
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 74
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct aattaccgta tgccttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttat atctattctt ctggtggcat tactcagtat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagatcgcga 300
tcttactatg gttcggggtc gtcgcggtac tggggccagg gaaccctggt caccgtctca 360
agcgcctcca ccaagggccc atcggtcttc ccg 393

<210> 75
<211> 405
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 75
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct cagtacatga tgacttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttat atcggttctt ctggtggcca gactaagtat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagggatcca 300
ggggtagcag tggctgggta ctactactac ggtatggacg tctggggcca agggaccacg 360
gtcaccgtct caagcgcctc caccaagggc ccatcggtct tcccg 405

<210> 76
<211> 411
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 76
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct cagtacaata tgccttgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttct atcgttcctt ctggtggctt tactgcttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagagtcgat 300
tgtagtggtg gtagctgcta ccggggtccc caaaactact ttgactactg gggccaggga 360
accctggtca ccgtctcaag cgcctccacc aagggcccat cggtcttccc g 411

<210> 77
<211> 351
<212> DNA
<213> Artificial Sequence

<220>
<223> Heavy Chain nucleic acid sequence

<400> 77
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct atgtactata tgttttgggt tcgccaagct 120
cctggtaagg tttggagtgg gtttctgtta tcgtttcttc tggtggcact actgagtatg 180
ctgactccgt taaaggtcgc ttcactatct ctagagacaa ctctaagaat actctctact 240
tgcagatgaa cagcttaagg gctgaggaca ctgcagtcta ctattgtgcg agaggggat 300
attgtagtgg tggcaggtgt tacacctggc tcgaagacta ctggggccag g 351

<210> 78
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 78
Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
1 5 10 15
Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Glu Ser Asn
20 25 30
Thr Val Thr Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45
Ile Tyr Ser Asp Asp Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60
Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80
Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asn Thr Leu
85 90 95
Arg Gly Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100 105 110

<210> 79
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 79
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Pro Tyr
20 25 30
Arg Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Tyr Ile Tyr Pro Ser Gly Gly Phe Thr Pro Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Phe Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Lys Gly Ser Thr Gly Tyr Arg Tyr Tyr Tyr Gly Met Asp Val Trp
100 105 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro

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        115                 120                 125
Ser Val Phe Pro
    130

<210> 80
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 80
Ser Gly Ser Ser Ser Asn Ile Glu Ser Asn Thr Val Thr
 1               5                  10

<210> 81
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 81
Ser Asp Asp Gln Arg Pro Ser
 1               5

<210> 82
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 82
Ala Thr Trp Asp Asn Thr Leu Arg Gly Val Val
 1               5                  10

<210> 83
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 83
Pro Tyr Arg Met Asp
 1               5

<210> 84
<211> 17
<212> PRT
<213> Artificial Sequence
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<220>
<223> Synthetically generated peptide

<400> 84
Tyr Ile Tyr Pro Ser Gly Gly Phe Thr Pro Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

<210> 85
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 85
Gly Ser Thr Gly Tyr Arg Tyr Tyr Tyr Gly Met Asp Val
 1   5   10

<210> 86
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 86
Gln Asp Ile Val Met Thr Gln Thr Pro Pro Ser Leu Pro Val Asn Pro
 1   5   10   15
Gly Glu Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Gln
            20   25   30
Ser Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln
        35   40   45
Ser Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val
    50   55   60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
65   70   75   80
Ile Ser Arg Val Glu Ala Glu Asp Val Gly Ile Tyr Tyr Cys Met Gln
                85   90   95
Ala Leu His Thr Pro Pro Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
            100   105   110
Arg Thr Val Ala Ala Pro Ser Val
        115   120

<210> 87
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 87
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly

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 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Trp Tyr
            20                  25                  30
Trp Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ser Ile Tyr Ser Ser Gly Gly Tyr Thr Ser Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Val Arg Asp Ile Leu Thr Gly Pro Tyr Tyr Phe Asp Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
        115                 120                 125
Ser Val Phe Pro
    130

<210> 88
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 88
Lys Ser Ser Gln Ser Leu Leu Gln Ser Asn Gly Tyr Asn Tyr Leu Asp
 1               5                  10                  15

<210> 89
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 89
Leu Gly Ser Asn Arg Ala Ser
 1               5

<210> 90
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 90
Met Gln Ala Leu His Thr Pro Pro
 1               5

<210> 91
<211> 5
<212> PRT
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<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 91
Trp Tyr Trp Met Asn
1 5

<210> 92
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 92
Ser Ile Tyr Ser Ser Gly Gly Tyr Thr Ser Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 93
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 93
Val Arg Asp Ile Leu Thr Gly Pro Tyr Tyr Phe Asp Tyr
1 5 10

<210> 94
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 94
Gln Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15
Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg His
20 25 30
Tyr Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu
35 40 45
Ile Tyr Ala Ala Ser Ser Leu Gln Phe Gly Val Pro Ala Arg Phe Ser
50 55 60
Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln
65 70 75 80
Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Phe Pro
85 90 95
Pro Ala Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala

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            100                 105                 110
Ala Pro Ser Val
        115

<210> 95
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 95
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Pro Tyr
            20                  25                  30
Asp Met Trp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Tyr Ile Ser Ser Ser Gly Gly Lys Thr Met Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Leu Gly Gly Asn Ser His Tyr Tyr Tyr Gly Met Asp Val Trp
            100                 105                 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
        115                 120                 125
Ser Val Phe Pro
    130

<210> 96
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 96
Arg Ala Ser Gln Gly Ile Arg His Tyr Leu Gly
 1               5                  10

<210> 97
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 97
Ala Ala Ser Ser Leu Gln Phe
 1               5

<210> 98
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<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 98
Leu Gln His Asn Ser Phe Pro Pro Ala
 1   5

<210> 99
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 99
Pro Tyr Asp Met Trp
 1   5

<210> 100
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 100
Tyr Ile Ser Ser Ser Gly Gly Lys Thr Met Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

<210> 101
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 101
Leu Gly Gly Asn Ser His Tyr Tyr Tyr Gly Met Asp Val
 1   5   10

<210> 102
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 102
Gln Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val
 1   5   10   15
Gly Asp Arg Ile Ala Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Thr
            20   25   30
Trp Leu Ala Trp Tyr Gln Gln Arg Pro Gly Arg Ala Pro Lys Leu Leu
        35   40   45
Ile Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln
65   70   75   80
Pro Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Ala Asp Ser Phe Pro
                85   90   95
Leu Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala
            100   105   110
Ala Pro Ser Val
        115

<210> 103
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

      Heavy Chain amino acid sequence
      Heavy Chain amino acid sequence

      Heavy Chain amino acid sequence

      Heavy Chain amino acid sequence

<400> 103
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
            20   25   30
Ala Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Tyr Ile Ser Pro Ser Gly Gly Tyr Thr Arg Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Ser Asp Phe Gly Ser Trp Gly Gln Gly Thr Leu Val Thr Val Ser
            100   105   110
Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
        115   120

<210> 104
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 104
Arg Ala Ser Gln Gly Ile Ser Thr Trp Leu Ala
 1   5   10

<210> 105
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 105
Ala Ala Ser Thr Leu Gln Ser
 1   5

<210> 106
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 106
Gln Gln Ala Asp Ser Phe Pro Leu Thr
 1   5

<210> 107
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 107
Asn Tyr Ala Met Asp
 1   5

<210> 108
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 108
Tyr Ile Ser Pro Ser Gly Gly Tyr Thr Arg Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

<210> 109
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 109
Asp Phe Gly Ser
1

<210> 110
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 110
Gln Asp Ile Gln Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro
1 5 10 15
Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Ser
20 25 30
Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu
35 40 45
Leu Ile Tyr Ala Ala Ala Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe
50 55 60
Ser Gly Ile Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu
65 70 75 80
Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asn Trp
85 90 95
Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val
100 105 110
Ala Ala Pro Ser Val
115

<210> 111
<211> 131
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 111
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Arg Tyr
20 25 30
His Met Glu Trp Val Arg Gln Ala His Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Tyr Ile Ser Pro Ser Gly Gly Lys Thr Leu Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

```
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg His Leu Gly Tyr Gly Ser Gly Ser Tyr Phe Asp Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
        115                 120                 125
Val Phe Pro
    130
```

<210> 112
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 112
Arg Ala Ser Gln Ser Ile Ser Ser Ser Tyr Leu Ala
 1   5   10

<210> 113
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 113
Ala Ala Ala Ser Arg Ala Thr
 1   5

<210> 114
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 114
Gln Gln Arg Ser Asn Trp Pro Leu Thr
 1   5

<210> 115
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 115
Arg Tyr His Met Glu
 1   5

<210> 116
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 116
Tyr Ile Ser Pro Ser Gly Gly Lys Thr Leu Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

<210> 117
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 117
His Leu Gly Tyr Gly Ser Gly Ser Tyr Phe Asp Tyr
 1   5   10

<210> 118
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 118
Gln Tyr Glu Leu Thr Gln Pro Pro Ser Val Ser Val Ser Pro Gly Gln
 1   5   10   15
Thr Ala Thr Ile Ile Cys Ser Gly Asp Lys Leu Gly Asp Lys Tyr Val
            20   25   30
Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Val Leu Val Val Tyr
        35   40   45
Glu Asp Asn Lys Arg Pro Ser Gly Ile Pro Glu Arg Ile Ser Gly Ser
    50   55   60
Asn Ser Gly Asn Thr Ala Thr Leu Thr Ile Ser Gly Thr Gln Ala Met
65   70   75   80
Asp Asp Ala Asp Tyr Tyr Cys Gln Ala Trp Asp Arg Ser Thr Asp His
                85   90   95
Tyr Val Phe Gly Thr Gly Thr Lys Val Thr Val Leu Gly Gln Pro Lys
            100   105   110
Ala Asn Pro Thr
        115

<210> 119
<211> 131
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 119
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
            20   25   30
Arg Met Pro Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Tyr Ile Tyr Ser Ser Gly Gly Ile Thr Gln Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Ser Arg Ser Tyr Tyr Gly Ser Gly Ser Ser Arg Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
        115   120   125
Val Phe Pro
    130

<210> 120
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 120
Ser Gly Asp Lys Leu Gly Asp Lys Tyr Val Ala
 1   5   10

<210> 121
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 121
Glu Asp Asn Lys Arg Pro Ser
 1   5

<210> 122
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 122
Gln Ala Trp Asp Arg Ser Thr Asp His Tyr Val

```
 1               5                   10

<210> 123
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 123
Asn Tyr Arg Met Pro
 1               5

<210> 124
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 124
Tyr Ile Tyr Ser Ser Gly Gly Ile Thr Gln Tyr Ala Asp Ser Val Lys
 1               5                   10                  15
Gly


<210> 125
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 125
Ser Arg Ser Tyr Tyr Gly Ser Gly Ser Ser Arg Tyr
 1               5                   10

<210> 126
<211> 108
<212> PRT
<213> Unknown

<220>
<223> Synthetically generated peptide

<223> Light Chain amino acid sequence

<400> 126
Gln Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Phe Ser Ala Ser Thr
 1               5                   10                  15
Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser
            20                  25                  30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu
        35                  40                  45
```

```
Ile Tyr Ala Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Lys Phe Ser
    50                  55                  60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln
65                  70                  75                  80
Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Ser Tyr Pro
                85                  90                  95
Leu Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys
            100                 105
```

<210> 127
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 127

```
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Trp Tyr
            20                  25                  30
Thr Met Val Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ser Ile Tyr Ser Ser Gly Gly Phe Thr Trp Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Ser Asp Phe Gly Ser Trp Gly Gln Gly Thr Leu Val Thr Val Ser
            100                 105                 110
Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
        115                 120
```

<210> 128
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 128

```
Arg Ala Ser Gln Gly Ile Ser Ser Tyr Leu Ala
 1               5                  10
```

<210> 129
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 129

```
Ala Ala Ser Thr Leu Gln Ser
```

1 5

<210> 130
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 130
Gln Gln Tyr Asn Ser Tyr Pro Leu Thr
1 5

<210> 131
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 131
Trp Tyr Thr Met Val
1 5

<210> 132
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 132
Ser Ile Tyr Ser Ser Gly Gly Phe Thr Trp Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 133
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetically generated peptide

<400> 133
Asp Phe Gly Ser
1

<210> 134
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 134
Gln Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Tyr Ala Ser Val
1 5 10 15
Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn
20 25 30
Glu Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Gln Arg Leu
35 40 45
Ile Tyr Asp Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser
50 55 60
Gly Gly Gly Ser Arg Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Glu
65 70 75 80
Pro His Asp Phe Gly Thr Tyr Tyr Cys Gln Gln Tyr Ala Ser Tyr Pro
85 90 95
Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
100 105 110
Ala Pro Ser Val
115

<210> 135
<211> 140
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 135
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Tyr
20 25 30
Lys Met Pro Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Ser Ile Trp Ser Ser Gly Gly Thr Thr Glu Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Glu Glu Ile Gly Arg Tyr Phe Asp Trp Phe Leu Gly Asn Tyr
100 105 110
Tyr Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val
115 120 125
Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
130 135 140

<210> 136
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 136
Arg Ala Ser Gln Gly Ile Arg Asn Glu Leu Gly
 1   5   10

<210> 137
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 137
Asp Ala Ser Thr Leu Gln Ser
 1   5

<210> 138
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 138
Gln Gln Tyr Ala Ser Tyr Pro Leu Thr
 1   5

<210> 139
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 139
Asp Tyr Lys Met Pro
 1   5

<210> 140
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 140
Ser Ile Trp Ser Ser Gly Gly Thr Thr Glu Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

<210> 141
<211> 21
<212> PRT

<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 141
Glu Glu Ile Gly Arg Tyr Phe Asp Trp Phe Leu Gly Asn Tyr Tyr Tyr
 1   5   10   15
Tyr Gly Met Asp Val
            20

<210> 142
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 142
Gln Ser Ala Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro Gly Gln
 1   5   10   15
Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn
            20   25   30
Phe Val Tyr Trp Tyr His His Leu Pro Gly Thr Ala Pro Lys Leu Leu
        35   40   45
Ile Tyr Arg Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Arg
65   70   75   80
Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Ser Leu
                85   90   95
Ser Gly Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln
            100   105   110
Pro Lys Ala Ala Pro Ser
        115

<210> 143
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 143
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gln Tyr
            20   25   30
Lys Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Tyr Ile Ser Pro Ser Gly Gly Tyr Thr Ala Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys

```
                85                  90                  95
Ala Arg Asp Val Val Ala Gly Pro Phe Asp Tyr Trp Gly Gln Gly Thr
            100                 105                 110
Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
        115                 120                 125

<210> 144
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 144
Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Phe Val Tyr
 1               5                   10

<210> 145
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 145
Arg Asn Asn Gln Arg Pro Ser
 1               5

<210> 146
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 146
Ala Ala Trp Asp Asp Ser Leu Ser Gly Val Val
 1               5                   10

<210> 147
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 147
Gln Tyr Lys Met Asn
 1               5

<210> 148
<211> 17
<212> PRT
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<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 148
Tyr Ile Ser Pro Ser Gly Gly Tyr Thr Ala Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

<210> 149
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 149
Asp Val Val Ala Gly Pro Phe Asp Tyr
 1   5

<210> 150
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 150
Gln Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
 1   5   10   15
Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Asn
            20   25   30
Tyr Leu Ala Trp Phe Gln Gln Lys Pro Gly Arg Ala Pro Lys Ser Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Leu Gln Thr Gly Val Pro Ser Lys Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Gly Leu Gln
65   70   75   80
Pro Glu Asp Val Ala Thr Tyr Tyr Cys His Gln Tyr Asn His Tyr Pro
                85   90   95
Pro Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
            100   105   110
Ala Pro Ser Val
        115

<210> 151
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 151
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Lys Tyr
            20   25   30
Pro Met Phe Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Trp Ile Ser Pro Ser Gly Gly Lys Thr Val Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Asp Cys Arg Gly Gly Cys Ser Gly Gly Ser Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
        115   120   125
Pro

<210> 152
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 152
Arg Ala Ser Gln Asp Ile Ser Asn Tyr Leu Ala
 1   5   10

<210> 153
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 153
Gly Ala Ser Ser Leu Gln Thr
 1   5

<210> 154
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 154
His Gln Tyr Asn His Tyr Pro Pro Thr
 1   5

<210> 155

<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 155
Lys Tyr Pro Met Phe
 1   5

<210> 156
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 156
Trp Ile Ser Pro Ser Gly Gly Lys Thr Val Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

<210> 157
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 157
Asp Cys Arg Gly Gly Cys Ser Gly Gly Ser
 1   5   10

<210> 158
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 158
Gln Asp Ile Gln Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro
 1   5   10   15
Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Asp Val Asn Arg
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Ile Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln
65   70   75   80
Ser Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr His Asn Trp Pro

```
                85                  90                  95
Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
            100                 105                 110
Ala Pro Ser Val
        115

<210> 159
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 159
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Arg Tyr
            20                  25                  30
Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Tyr Ile Ser Pro Ser Gly Gly Met Thr Lys Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Asn Thr Leu Gly Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
            100                 105                 110
Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
        115                 120

<210> 160
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 160
Arg Ala Ser Gln Asp Val Asn Arg Tyr Leu Ala
 1               5                  10

<210> 161
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 161
Gly Ala Ser Thr Arg Ala Thr
 1               5

<210> 162
```

<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 162
Gln Gln Tyr His Asn Trp Pro Leu Thr
1 5

<210> 163
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 163
Arg Tyr Ser Met Asn
1 5

<210> 164
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 164
Tyr Ile Ser Pro Ser Gly Gly Met Thr Lys Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 165
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 165
Thr Leu Gly Tyr
1

<210> 166
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 166
Gln Ser Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
 1   5   10   15
Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Tyr Tyr
            20   25   30
Asp Tyr Val Ser Trp Tyr Gln His His Pro Gly Lys Ala Pro Lys Leu
        35   40   45
Ile Ile Tyr Asp Val Thr Ser Arg Pro Ser Gly Val Ser Ser His Phe
    50   55   60
Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65   70   75   80
Gln Ala Asp Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Thr Ser Gly
                85   90   95
Ser Thr Arg Tyr Val Phe Gly Pro Gly Thr Lys Val Thr Val Leu Gly
            100   105   110
Gln Pro Lys Ala Asn Pro Thr
        115

<210> 167
<211> 131
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 167
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Tyr
            20   25   30
Tyr Met Arg Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Arg Ile Tyr Pro Ser Gly Gly His Thr Trp Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg His Arg Ala Gly Ser Ser Gly Trp Tyr Ser Asp Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
        115   120   125
Val Phe Pro
    130

<210> 168
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 168
Thr Gly Thr Ser Ser Asp Val Gly Tyr Tyr Asp Tyr Val Ser
 1   5   10

<210> 169
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 169
Asp Val Thr Ser Arg Pro Ser
 1   5

<210> 170
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 170
Ser Ser Tyr Thr Ser Gly Ser Thr Arg Tyr Val
 1   5   10

<210> 171
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 171
Asp Tyr Tyr Met Arg
 1   5

<210> 172
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 172
Arg Ile Tyr Pro Ser Gly Gly His Thr Trp Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

<210> 173
<211> 12
<212> PRT
<213> Artificial Sequence

<220>

<223> Heavy Chain amino acid sequence

<400> 173
His Arg Ala Gly Ser Ser Gly Trp Tyr Ser Asp Tyr
 1   5   10

<210> 174
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 174
Gln Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
 1   5   10   15
Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asn
            20   25   30
Tyr Leu Ala Trp Phe Gln Gln Lys Pro Gly Glu Ala Pro Lys Ser Leu
        35   40   45
Ile Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Ser Ser Asn Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln
65   70   75   80
Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr His Arg Tyr Pro
                85   90   95
Arg Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala
            100   105   110
Ala Pro Ser Val
        115

<210> 175
<211> 131
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 175
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ala Tyr
            20   25   30
Asn Met Pro Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Tyr Ile Ser Ser Ser Gly Thr Gly Tyr Ala Asp Ser Val Lys Gly
    50   55   60
Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln
65   70   75   80
Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
                85   90   95
Glu Leu Gly Ser Gly Ser Tyr Tyr Pro Gly Tyr Phe Gln His Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
        115   120   125

Val Phe Pro
130

<210> 176
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 176
Arg Ala Ser Gln Asp Ile Arg Asn Tyr Leu Ala
1 5 10

<210> 177
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 177
Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 178
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 178
Gln Gln Tyr His Arg Tyr Pro Arg Thr
1 5

<210> 179
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 179
Ala Tyr Asn Met Pro
1 5

<210> 180
<211> 16
<212> PRT
<213> Artificial Sequence

<220>

<223> Heavy Chain amino acid sequence

<400> 180
Tyr Ile Ser Ser Ser Gly Thr Gly Tyr Ala Asp Ser Val Lys Gly Arg
 1   5   10   15

<210> 181
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 181
Glu Leu Gly Ser Gly Ser Tyr Tyr Pro Gly Tyr Phe Gln His
 1   5   10

<210> 182
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 182
Gln Asp Ile Gln Met Thr Gln Ser Pro Ala Thr Leu Tyr Val Ser Pro
 1   5   10   15
Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Arg
            20   25   30
Asn Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Arg Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln
65   70   75   80
Ser Glu Asp Phe Ala Val Tyr His Cys Gln Gln Tyr Asn Ser Arg Pro
                85   90   95
Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
            100   105   110
Ala Pro Ser Val
        115

<210> 183
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 183
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Trp Tyr
            20   25   30

```
Phe Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ser Ile Tyr Pro Ser Gly Gly Tyr Thr Met Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Lys Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Ser Asp Phe Gly Ser Trp Gly Gln Gly Thr Leu Val Thr Val Ser
            100                 105                 110
Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
        115                 120
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<210> 184
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 184
Arg Ala Ser Gln Ser Val Ser Arg Asn Leu Ala
 1   5   10

<210> 185
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 185
Gly Ala Ser Thr Arg Ala Thr
 1   5

<210> 186
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 186
Gln Gln Tyr Asn Ser Arg Pro Leu Thr
 1   5

<210> 187
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 187
Trp Tyr Phe Met Asn
 1   5

<210> 188
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 188
Ser Ile Tyr Pro Ser Gly Gly Tyr Thr Met Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

<210> 189
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 189
Asp Phe Gly Ser
 1

<210> 190
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 190
Gln Ser Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
 1   5   10   15
Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Tyr Tyr
            20   25   30
Asp Tyr Val Ser Trp Tyr Gln His His Pro Gly Lys Ala Pro Lys Leu
        35   40   45
Ile Ile Tyr Asp Val Thr Ser Arg Pro Ser Gly Val Ser Ser His Phe
    50   55   60
Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65   70   75   80
Gln Ala Asp Asp Glu Ala Asp Tyr Tyr Cys Ser Ser Tyr Thr Ser Gly
                85   90   95
Ser Thr Arg Tyr Val Phe Gly Pro Gly Thr Lys Val Thr Val Leu Gly
            100   105   110
Gln Pro Lys Ala Asn Pro Thr
        115

<210> 191

<211> 131
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 191
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Tyr
            20   25   30
Tyr Met Arg Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Arg Ile Tyr Pro Ser Gly Gly His Thr Trp Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg His Arg Ala Gly Ser Ser Gly Trp Tyr Ser Asp Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
        115   120   125
Val Phe Pro
    130

<210> 192
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 192
Thr Gly Thr Ser Ser Asp Val Gly Tyr Tyr Asp Tyr Val Ser
 1   5   10

<210> 193
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 193
Asp Val Thr Ser Arg Pro Ser
 1   5

<210> 194
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<223> Light Chain amino acid sequence

<400> 194
Ser Ser Tyr Thr Ser Gly Ser Thr Arg Tyr Val
1 5 10

<210> 195
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 195
Asp Tyr Tyr Met Arg
1 5

<210> 196
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 196
Arg Ile Tyr Pro Ser Gly Gly His Thr Trp Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 197
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 197
His Arg Ala Gly Ser Ser Gly Trp Tyr Ser Asp Tyr
1 5 10

<210> 198
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 198
Gln Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15
Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser
20 25 30

```
Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu
        35                  40                  45
Ile Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser
    50                  55                  60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln
65                  70                  75                  80
Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Arg
                85                  90                  95
Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
            100                 105                 110
Ala Pro Ser Val
        115

<210> 199
<211> 137
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 199
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
            20                  25                  30
Phe Met Arg Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Tyr Ile Val Pro Ser Gly Gly Asn Thr Leu Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Glu Glu Trp Asp Val Leu Leu Trp Phe Gly Glu Leu Ser Ala
            100                 105                 110
Ala Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala
        115                 120                 125
Ser Thr Lys Gly Pro Ser Val Phe Pro
    130                 135

<210> 200
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 200
Arg Ala Ser Gln Ser Ile Ser Ser Tyr Leu Asn
 1               5                  10

<210> 201
<211> 7
<212> PRT
<213> Artificial Sequence
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<220>
<223> Light Chain amino acid sequence

<400> 201
Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 202
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 202
Gln Gln Ser Tyr Ser Thr Arg Trp Thr
1 5

<210> 203
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 203
Thr Tyr Phe Met Arg
1 5

<210> 204
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 204
Tyr Ile Val Pro Ser Gly Gly Asn Thr Leu Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 205
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 205
Glu Glu Trp Asp Val Leu Leu Trp Phe Gly Glu Leu Ser Ala Ala Phe
1 5 10 15

Asp Ile

<210> 206
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 206
Gln Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15
Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg His
20 25 30
Tyr Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu
35 40 45
Ile Tyr Ala Ala Ser Ser Leu Gln Phe Gly Val Pro Ala Arg Phe Ser
50 55 60
Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln
65 70 75 80
Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Phe Pro
85 90 95
Pro Ala Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
100 105 110
Ala Pro Ser Val
115

<210> 207
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 207
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Pro Tyr
20 25 30
Asp Met Trp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Tyr Ile Ser Ser Ser Gly Gly Lys Thr Met Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Leu Gly Gly Asn Ser His Tyr Tyr Tyr Gly Met Asp Val Trp
100 105 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
115 120 125
Ser Val Phe Pro
130

<210> 208
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 208
Arg Ala Ser Gln Gly Ile Arg His Tyr Leu Gly
 1   5   10

<210> 209
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 209
Ala Ala Ser Ser Leu Gln Phe
 1   5

<210> 210
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 210
Leu Gln His Asn Ser Phe Pro Pro Ala
 1   5

<210> 211
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 211
Pro Tyr Asp Met Trp
 1   5

<210> 212
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 212

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Tyr Ile Ser Ser Ser Gly Gly Lys Thr Met Tyr Ala Asp Ser Val Lys
 1               5                  10                  15
Gly


<210> 213
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 213
Leu Gly Gly Asn Ser His Tyr Tyr Tyr Gly Met Asp Val
 1               5                  10

<210> 214
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 214
Gln Ser Glu Leu Thr Gln Pro Pro Ser Ala Ser Ala Thr Pro Gly Gln
 1               5                  10                  15
Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Arg Asn
            20                  25                  30
Leu Val Tyr Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
        35                  40                  45
Ile Tyr Ser Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
    50                  55                  60
Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Arg
65                  70                  75                  80
Ser Glu Glu Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Ser Leu
                85                  90                  95
Ser Gly Trp Val Phe Gly Gly Gly Thr Arg Leu Thr Val Leu Gly Gln
            100                 105                 110
Pro Lys Ala Ala Pro Ser
        115

<210> 215
<211> 131
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 215
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Trp Tyr
            20                  25                  30
His Met Arg Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
```

```
        35                  40                  45
Ser Ile Tyr Pro Ser Gly Gly Val Thr Ser Tyr Ala Asp Ser Val Lys
    50                  55                  60
Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu
65                  70                  75                  80
Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala
                85                  90                  95
Arg Glu Thr Ser Gly Trp Tyr Arg Asp Arg Trp Phe Asp Pro Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
        115                 120                 125
Val Phe Pro
    130
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<210> 216
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 216
Ser Gly Ser Ser Ser Asn Ile Gly Arg Asn Leu Val Tyr
 1   5   10

<210> 217
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 217
Ser Asn Asn Gln Arg Pro Ser
 1   5

<210> 218
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 218
Ala Ala Trp Asp Asp Ser Leu Ser Gly Trp Val
 1   5   10

<210> 219
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 219
Trp Tyr His Met Arg
1 5

<210> 220
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 220
Ile Tyr Pro Ser Gly Gly Val Thr Asp Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 221
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 221
Glu Thr Ser Gly Trp Tyr Arg Asp Arg Trp Phe Asp Pro
1 5 10

<210> 222
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 222
Gln Ser Val Leu Thr Gln Thr Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15
Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Ile Gly Asp Tyr
20 25 30
Glu Tyr Val Ser Trp Tyr Gln Gln His Pro Gly Lys Ala Pro Lys Val
35 40 45
Ile Leu Tyr Glu Val Ser Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60
Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80
Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gly Ser Tyr Arg Lys Ser
85 90 95
Ser Thr Pro Tyr Val Phe Gly Thr Gly Thr Lys Val Ser Val Leu Gly
100 105 110
Gln Pro Lys Ala Asn Pro Thr
115

<210> 223
<211> 138

<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 223
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Tyr
            20   25   30
His Met Trp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Val Ile Val Pro Ser Gly Gly Gly Thr Gln Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Gly His Ser Ser Ser Trp Tyr Gly Gly Gly Ala His Tyr
            100   105   110
Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
    130   135

<210> 224
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 224
Thr Gly Thr Ser Ser Asp Ile Gly Asp Tyr Glu Tyr Val Ser
 1   5   10

<210> 225
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 225
Tyr Glu Val Ser Asn Arg Pro Ser
 1   5

<210> 226
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 226
Gly Ser Tyr Arg Lys Ser Ser Thr Pro Tyr Val
1 5 10

<210> 227
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 227
Tyr Tyr His Met Trp
1 5

<210> 228
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 228
Val Ile Val Pro Ser Gly Gly Gly Thr Gln Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 229
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 229
Asp Gly His Ser Ser Ser Trp Tyr Gly Gly Gly Ala His Tyr Tyr Gly
1 5 10 15
Met Asp Val

<210> 230
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 230
Gln Asp Ile Gln Met Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro
1 5 10 15
Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser

```
            20                  25                  30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35                  40                  45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50                  55                  60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Gly Arg Leu Glu
65                  70                  75                  80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ser Ser Ser Pro
                85                  90                  95
Val Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys Arg Thr Val Ala
            100                 105                 110
Ala Pro Ser Val
        115

<210> 231
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 231
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30
Arg Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Gly Ile Val Pro Ser Gly Gly Lys Thr Phe Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Ser Asp Phe Gly Ser Trp Gly Gln Gly Thr Leu Val Thr Val Ser
            100                 105                 110
Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
        115                 120

<210> 232
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 232
Arg Ala Ser Gln Ser Val Ser Ser Tyr Leu Ala
 1               5                  10

<210> 233
<211> 7
<212> PRT
<213> Artificial Sequence
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<220>
<223> Light Chain amino acid sequence

<400> 233
Gly Ala Ser Ser Arg Ala Thr
1 5

<210> 234
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 234
Gln Gln Tyr Ser Ser Ser Pro Val Thr
1 5

<210> 235
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 235
Ser Tyr Arg Met Asn
1 5

<210> 236
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 236
Gly Ile Val Pro Ser Gly Gly Lys Thr Phe Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 237
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 237
Asp Phe Gly Ser
1

<210> 238
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 238
Gln Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
 1   5   10   15
Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Arg Ile Ser Ser
            20   25   30
Tyr Val Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu
        35   40   45
Ile Tyr Ser Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser
    50   55   60
Gly Ser Val Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln
65   70   75   80
Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Arg Thr Pro
                85   90   95
Pro Phe Phe Gly Gln Gly Thr Lys Leu Glu Val Lys Arg Thr Val Ala
            100   105   110
Ala Pro Ser Val
        115

<210> 239
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 239
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Leu Tyr
            20   25   30
Gln Met Leu Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Gly Ile Val Ser Ser Gly Gly Leu Thr Gly Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg His Asn Arg Ala Ile Gly Thr Phe Asp Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
        115   120   125
Pro

<210> 240
<211> 11
<212> PRT

<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 240
Arg Ala Ser Gln Arg Ile Ser Ser Tyr Val Asn
 1   5   10

<210> 241
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 241
Ser Ala Ser Ser Leu Gln Ser
 1   5

<210> 242
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 242
Gln Gln Ser Tyr Arg Thr Pro Pro Phe
 1   5

<210> 243
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 243
Leu Tyr Gln Met Leu
 1   5

<210> 244
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 244
Gly Ile Val Ser Ser Gly Gly Leu Thr Gly Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

<210> 245
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 245
His Asn Arg Ala Ile Gly Thr Phe Asp Tyr
 1   5   10

<210> 246
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 246
Gln Asp Ile Gln Met Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro
 1   5   10   15
Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Arg
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln
65   70   75   80
Ser Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro
                85   90   95
Ser Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
            100   105   110
Pro Ser Val
        115

<210> 247
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 247
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
            20   25   30
Ser Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Trp Ile Ser Pro Ser Gly Gly Leu Thr Thr Tyr Ala Asp Ser Val
    50   55   60

```
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Ser Asp Phe Gly Ser Trp Gly Gln Gly Thr Leu Val Thr Val Ser
            100                 105                 110
Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
        115                 120
```

<210> 248
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 248
```
Arg Ala Ser Gln Ser Val Ser Arg Tyr Leu Ala
 1               5                  10
```

<210> 249
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 249
```
Gly Ala Ser Thr Arg Ala Thr
 1               5
```

<210> 250
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 250
```
Gln Gln Tyr Asn Asn Trp Pro Ser
 1               5
```

<210> 251
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 251
```
Asn Tyr Ser Met Asp
 1               5
```

<210> 252
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 252
Trp Ile Ser Pro Ser Gly Gly Leu Thr Thr Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

<210> 253
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 253
Asp Phe Gly Ser
 1

<210> 254
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 254
Gln Ser Val Leu Thr Gln Pro Pro Tyr Ala Ser Ala Ser Leu Gly Ala
 1   5   10   15
Ser Val Thr Leu Thr Cys Thr Leu Ser Ser Gly Tyr Ser Asn Tyr Lys
            20   25   30
Val Asp Trp Tyr Gln Gln Arg Pro Gly Lys Gly Pro Gln Phe Val Met
        35   40   45
Arg Val Gly Ser Gly Gly Ile Val Gly Ser Lys Gly Asp Gly Ile Pro
    50   55   60
Asp Arg Phe Ser Val Leu Gly Ser Gly Leu Tyr Arg Tyr Leu Thr Ile
65   70   75   80
Lys Asn Ile Gln Glu Glu Asp Glu Ser Asp Tyr Tyr Cys Gly Ala Asp
                85   90   95
His Gly Arg Gly Gly Thr Phe Val Trp Val Phe Gly Gly Gly Thr Lys
            100   105   110
Leu Thr Val Leu Gly Gln Pro Lys Ala Ala Pro Ser
        115   120

<210> 255
<211> 136
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 255
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Lys
            20   25   30
Met Met Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser
        35   40   45
Tyr Ile Ser Ser Ser Gly Gly Ile Thr Thr Tyr Ala Asp Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala
                85   90   95
Arg Asp Pro Thr Tyr Asp Phe Trp Ser Gly Tyr Tyr Tyr Tyr Tyr Tyr
            100   105   110
Met Asp Val Trp Gly Lys Gly Thr Thr Val Thr Val Ser Ser Ala Ser
        115   120   125
Thr Lys Gly Pro Ser Val Phe Pro
    130   135

<210> 256
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 256
Thr Leu Ser Ser Gly Tyr Ser Asn Tyr Lys Val Asp
 1   5   10

<210> 257
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 257
Arg Val Gly Ser Gly Gly Ile Val Gly Ser Lys Gly Asp
 1   5   10

<210> 258
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 258
Gly Ala Asp His Gly Arg Gly Gly Thr Phe Val Trp Val

```
 1               5                   10

<210> 259
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 259
Ser Tyr Lys Met Met
 1               5

<210> 260
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 260
Tyr Ile Ser Ser Ser Gly Gly Ile Thr Thr Tyr Ala Asp Ser Val Lys
 1               5                   10                  15
Gly


<210> 261
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 261
Arg Asp Pro Thr Tyr Asp Phe Trp Ser Gly Tyr Tyr Tyr Tyr Tyr Tyr
 1               5                   10                  15
Met Asp Val


<210> 262
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 262
Gln Ser Ala Leu Thr Gln Pro Ser Ser Ala Ser Gly Thr Pro Gly Gln
 1               5                   10                  15
Arg Val Ser Ile Ser Cys Ser Gly Ser Ser Tyr Asn Ile Gly Val Tyr
            20                  25                  30
Asp Val Tyr Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
        35                  40                  45
```

```
Ile Tyr Thr Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
    50                  55                  60
Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65                  70                  75                  80
Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Ser Leu
                85                  90                  95
Ser Gly Trp Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu Gly Gln
            100                 105                 110
Pro Lys Ala Ala Pro Ser
        115
```

<210> 263
<211> 137
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 263

```
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gln Tyr
            20                  25                  30
Asn Met Pro Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ser Ile Val Pro Ser Gly Gly Phe Thr Ala Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Val Asp Cys Ser Gly Gly Ser Cys Tyr Arg Gly Pro Gln Asn
            100                 105                 110
Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala
        115                 120                 125
Ser Thr Lys Gly Pro Ser Val Phe Pro
    130                 135
```

<210> 264
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 264

```
Ser Gly Ser Ser Tyr Asn Ile Gly Val Tyr Asp Val Tyr
 1               5                  10
```

<210> 265
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Light Chain amino acid sequence

<400> 265
Thr Asn Asn Gln Arg Pro Ser
1 5

<210> 266
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 266
Ala Ala Trp Asp Asp Ser Leu Ser Gly Trp Val
1 5 10

<210> 267
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 267
Gln Tyr Asn Met Pro
1 5

<210> 268
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 268
Ser Ile Val Pro Ser Gly Gly Phe Thr Ala Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 269
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 269
Val Asp Cys Ser Gly Gly Ser Cys Tyr Arg Gly Pro Gln Asn Tyr Phe
1 5 10 15
Asp Tyr

<210> 270
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 270
Gln Tyr Glu Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15
Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
20 25 30
Asn Tyr Val Ser Trp Tyr Gln Gln His Pro Gly Lys Ala Pro Lys Leu
35 40 45
Met Ile Tyr Glu Val Ser Asn Arg Pro Ser Gly Val Ser Asn Arg Phe
50 55 60
Ser Gly Ser Lys Ser Asp Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80
Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gly Ser Tyr Arg Lys Ser
85 90 95
Ser Thr Pro Tyr Val Phe Gly Thr Gly Thr Lys Val Ser Val Leu Gly
100 105 110
Gln Pro Lys Ala Asn Pro Thr
115

<210> 271
<211> 135
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 271
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gln Tyr
20 25 30
Met Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Tyr Ile Gly Ser Ser Gly Gly Gln Thr Lys Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Gly Val Ala Val Ala Gly Tyr Tyr Tyr Tyr Gly Met
100 105 110
Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr
115 120 125
Lys Gly Pro Ser Val Phe Pro
130 135

<210> 272
<211> 14

<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 272
Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr Asn Tyr Val Ser
1 5 10

<210> 273
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 273
Glu Val Ser Asn Arg Pro Ser
1 5

<210> 274
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 274
Gly Ser Tyr Arg Lys Ser Ser Thr Pro Tyr Val
1 5 10

<210> 275
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 275
Gln Tyr Met Met Thr
1 5

<210> 276
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 276
Tyr Ile Gly Ser Ser Gly Gly Gln Thr Lys Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 277
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 277
Asp Pro Gly Val Ala Val Ala Gly Tyr Tyr Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 278
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 278
Gln Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val
 1   5   10   15
Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Arg Gly Ile Ser Arg
            20   25   30
Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Thr Leu Gln Lys Gly Val Pro Ser Arg Phe Thr
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Thr Ser Leu Gln
65   70   75   80
Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Gly Asn Ser Phe Pro
                85   90   95
Phe Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala
            100   105   110
Ala Pro Ser Val
        115

<210> 279
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 279
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gly Tyr
            20   25   30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Val Ile Arg Pro Ser Gly Gly Lys Thr Gly Tyr Ala Asp Ser Val

```
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Phe Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Val Arg Ala Pro Gly Tyr Tyr Tyr Tyr Gly Met Asp Val Trp
            100                 105                 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
        115                 120                 125
Ser Val Phe Pro
    130
```

<210> 280
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 280
```
Arg Ala Ser Arg Gly Ile Ser Arg Trp Leu Ala
 1               5                   10
```

<210> 281
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 281
```
Gly Ala Ser Thr Leu Gln Lys
 1               5
```

<210> 282
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 282
```
Gln Gln Gly Asn Ser Phe Pro Phe Thr
 1               5
```

<210> 283
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 283

```
Gly Tyr Trp Met Ser
 1               5

<210> 284
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 284
Val Ile Arg Pro Ser Gly Gly Lys Thr Gly Tyr Ala Asp Ser Val Lys
 1               5                  10                  15
Gly


<210> 285
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 285
Val Arg Ala Pro Gly Tyr Tyr Tyr Tyr Gly Met Asp Val
 1               5                  10

<210> 286
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 286
Gln Ser Val Leu Thr Gln Thr Ala Ser Val Ser Gly Ser Pro Gly Gln
 1               5                  10                  15
Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Ile Gly Asp Tyr
            20                  25                  30
Glu Tyr Val Ser Trp Tyr Gln Gln His Pro Gly Lys Ala Pro Lys Val
        35                  40                  45
Ile Leu Tyr Glu Val Ser Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
    50                  55                  60
Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65                  70                  75                  80
Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gly Ser Tyr Arg Lys Ser
                85                  90                  95
Ser Thr Pro Tyr Val Phe Gly Thr Gly Thr Lys Val Ser Val Leu Gly
            100                 105                 110
Gln Pro Lys Ala Asn Pro Thr
        115

<210> 287
<211> 138
```

<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 287
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Tyr Tyr
            20   25   30
His Met Trp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Val Ile Val Pro Ser Gly Gly Gly Thr Gln Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Gly His Ser Ser Ser Trp Tyr Gly Gly Gly Ala His Tyr
            100   105   110
Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
    130   135

<210> 288
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 288
Thr Gly Thr Ser Ser Asp Ile Gly Asp Tyr Glu Tyr Val Ser
 1   5   10

<210> 289
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 289
Tyr Glu Val Ser Asn Arg Pro Ser
 1   5

<210> 290
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 290
Gly Ser Tyr Arg Lys Ser Ser Thr Pro Tyr Val
1 5 10

<210> 291
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 291
Tyr Tyr His Met Trp
1 5

<210> 292
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 292
Val Ile Val Pro Ser Gly Gly Gly Thr Gln Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 293
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 293
Asp Gly His Ser Ser Ser Trp Tyr Gly Gly Gly Ala His Tyr Tyr Gly
1 5 10 15
Met Asp Val

<210> 294
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 294
Gln Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15
Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn

```
            20                  25                  30
Asp Leu Gly Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Arg Arg Leu
        35                  40                  45
Ile Trp Gly Ala Ser Thr Leu Gln Ser Gly Val Pro Ser Arg Phe Ser
    50                  55                  60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln
65                  70                  75                  80
Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln Asp Tyr Asn Tyr Pro
                85                  90                  95
Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala
            100                 105                 110
Ala Pro Ser Val
        115
```

<210> 295
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 295

```
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Phe Tyr
            20                  25                  30
Gly Met Pro Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Gly Ile Tyr Pro Ser Gly Gly Val Thr Arg Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Lys Thr Tyr Ser Ser Ser Trp Tyr Gly Trp Tyr Phe Asp Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
        115                 120                 125
Ser Val Phe Pro
    130
```

<210> 296
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 296

```
Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu Gly
 1               5                  10
```

<210> 297
<211> 7
<212> PRT

<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 297
Gly Ala Ser Thr Leu Gln Ser
1 5

<210> 298
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain amino acid sequence

<400> 298
Leu Gln Asp Tyr Asn Tyr Pro Tyr Thr
1 5

<210> 299
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 299
Phe Tyr Gly Met Pro
1 5

<210> 300
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain amino acid sequence

<400> 300
Gly Ile Tyr Pro Ser Gly Gly Val Thr Arg Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 301
<211> 13
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 301
Thr Tyr Ser Ser Ser Trp Tyr Gly Trp Tyr Phe Asp Tyr

```
 1               5                  10

<210> 302
<211> 117
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 302
Gln Asp Ile Gln Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro
 1               5                  10                  15
Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser
            20                  25                  30
Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu
        35                  40                  45
Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe
    50                  55                  60
Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu
65                  70                  75                  80
Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser
                85                  90                  95
Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val
            100                 105                 110
Ala Ala Pro Ser Val
        115

<210> 303
<211> 130
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 303
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Phe Tyr
            20                  25                  30
Pro Met Pro Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Tyr Ile Ser Pro Ser Gly Gly Asp Thr Thr Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Phe Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gly Gly Ser Tyr Ser Ser Ser Trp Tyr Gly Tyr Trp Gly Gln
            100                 105                 110
Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
        115                 120                 125
Phe Pro
    130

<210> 304
```

<211> 12
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 304
Arg Ala Ser Gln Ser Val Ser Ser Ser Tyr Leu Ala
 1   5   10

<210> 305
<211> 7
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 305
Gly Ala Ser Ser Arg Ala Thr
 1   5

<210> 306
<211> 9
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 306
Gln Gln Tyr Gly Ser Ser Pro Trp Thr
 1   5

<210> 307
<211> 5
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 307
Phe Tyr Pro Met Pro
 1   5

<210> 308
<211> 17
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 308
Tyr Ile Ser Pro Ser Gly Gly Asp Thr Thr Tyr Ala Asp Ser Val Lys

```
 1               5                  10                  15
Gly


<210> 309
<211> 11
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 309
Gly Gly Ser Tyr Ser Ser Ser Trp Tyr Gly Tyr
 1               5                  10

<210> 310
<211> 116
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 310
Gln Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val
 1               5                  10                  15
Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Arg Gly Ile Ser Arg
            20                  25                  30
Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu
        35                  40                  45
Ile Tyr Gly Ala Ser Thr Leu Gln Lys Gly Val Pro Ser Arg Phe Thr
    50                  55                  60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Thr Ser Leu Gln
65                  70                  75                  80
Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Gly Asn Ser Phe Pro
                85                  90                  95
Phe Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala
            100                 105                 110
Ala Pro Ser Val
        115

<210> 311
<211> 132
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 311
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gly Tyr
            20                  25                  30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
```

```
Ser Val Ile Arg Pro Ser Gly Gly Lys Thr Gly Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Phe Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Val Arg Ala Pro Gly Tyr Tyr Tyr Tyr Gly Met Asp Val Trp
            100                 105                 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
        115                 120                 125
Ser Val Phe Pro
    130
```

<210> 312
<211> 11
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 312
Arg Ala Ser Arg Gly Ile Ser Arg Trp Leu Ala
 1   5   10

<210> 313
<211> 7
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 313
Gly Ala Ser Thr Leu Gln Lys
 1   5

<210> 314
<211> 9
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 314
Gln Gln Gly Asn Ser Phe Pro Phe Thr
 1   5

<210> 315
<211> 5
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 315
Gly Tyr Trp Met Ser
1 5

<210> 316
<211> 17
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 316
Val Ile Arg Pro Ser Gly Gly Lys Thr Gly Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 317
<211> 13
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 317
Val Arg Ala Pro Gly Tyr Tyr Tyr Tyr Gly Met Asp Val
1 5 10

<210> 318
<211> 118
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 318
Gln Ser Val Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
1 5 10 15
Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr
20 25 30
Asn Tyr Val Ser Trp Tyr Gln Arg His Pro Gly Lys Ala Pro Lys Leu
35 40 45
Ile Ile Tyr Asp Val Thr Asn Arg Pro Ser Gly Ala Ser Arg His Phe
50 55 60
Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
65 70 75 80
Gln Ala Asp Asp Glu Ala Asp Tyr Tyr Cys Val Ser Phe Thr Asn Ser
85 90 95
Asn Thr Phe Val Phe Gly Ser Gly Thr Arg Val Thr Val Leu Gly Gln
100 105 110
Pro Lys Ala Asn Pro Thr
115

<210> 319

<211> 138
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 319
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Leu Tyr
            20   25   30
His Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Val Ile Tyr Pro Ser Gly Gly Gly Thr Pro Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Arg Val Gly Tyr Cys Ser Gly Gly Ser Cys Tyr Tyr Tyr Tyr
            100   105   110
Tyr Tyr Met Asp Val Trp Gly Lys Gly Thr Thr Val Thr Val Ser Ser
        115   120   125
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
    130   135

<210> 320
<211> 14
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 320
Thr Gly Thr Ser Ser Asp Val Gly Gly Tyr Asn Tyr Val Ser
 1   5   10

<210> 321
<211> 6
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 321
Asp Val Thr Asn Arg Pro
 1   5

<210> 322
<211> 10
<212> PRT
<213> Unknown

<220>

<223> Light Chain amino acid sequence

<400> 322
Val Ser Phe Thr Asn Ser Asn Thr Phe Val
1 5 10

<210> 323
<211> 5
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 323
Leu Tyr His Met Asp
1 5

<210> 324
<211> 17
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 324
Val Ile Tyr Pro Ser Gly Gly Gly Thr Pro Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 325
<211> 19
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 325
Arg Val Gly Tyr Cys Ser Gly Gly Ser Cys Tyr Tyr Tyr Tyr Tyr Tyr
1 5 10 15
Met Asp Val

<210> 326
<211> 116
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 326
Gln Asp Ile Gln Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro
1 5 10 15

```
Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Arg Ser
            20                  25                  30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35                  40                  45
Ile Tyr Asp Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser
    50                  55                  60
Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln
65                  70                  75                  80
Ser Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn Trp Pro
                85                  90                  95
Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
            100                 105                 110
Ala Pro Ser Val
        115

<210> 327
<211> 123
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 327
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Trp Tyr
            20                  25                  30
Arg Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ser Ile Val Pro Ser Gly Gly Tyr Thr Arg Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Ser Asp Phe Gly Ser Trp Gly Gln Gly Thr Leu Val Thr Val Ser
            100                 105                 110
Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
        115                 120

<210> 328
<211> 11
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 328
Arg Ala Ser Gln Ser Val Arg Ser Tyr Leu Ala
 1               5                  10

<210> 329
<211> 7
<212> PRT
<213> Unknown
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<220>
<223> Light Chain amino acid sequence

<400> 329
Asp Ala Ser Thr Arg Ala Thr
1 5

<210> 330
<211> 9
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 330
Gln Gln Tyr Asn Asn Trp Pro Pro Thr
1 5

<210> 331
<211> 5
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 331
Trp Tyr Arg Met Asn
1 5

<210> 332
<211> 17
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 332
Ser Ile Val Pro Ser Gly Gly Tyr Thr Arg Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 333
<211> 4
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 333
Asp Phe Gly Ser
1

<210> 334
<211> 123
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 334
Phe Tyr Ser His Ser Ala Gln Ser Glu Leu Thr Gln Pro Pro Ser Ala
1 5 10 15
Ser Gly Thr Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser
20 25 30
Ser Asn Ile Gly Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly
35 40 45
Thr Ala Pro Lys Leu Leu Ile Tyr Ser Asn Asn Tyr Arg Pro Ser Gly
50 55 60
Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu
65 70 75 80
Ala Ile Ser Gly Leu Gln Ser Asp Asp Glu Ala Glu Tyr Leu Cys Ala
85 90 95
Ala Trp Asp Asp Ser Leu Asn Gly Pro Val Phe Gly Gly Gly Thr Lys
100 105 110
Val Thr Val Leu Gly Gln Pro Lys Ala Ala Pro
115 120

<210> 335
<211> 130
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 335
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30
Val Met Ile Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Trp Ile Ser Ser Ser Gly Gly Tyr Thr Ser Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Lys Gly Pro Gly Thr Arg Gly Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110
Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
115 120 125
Ala Pro
130

<210> 336
<211> 13

<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 336
Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Thr Val Asn
 1   5   10

<210> 337
<211> 5
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 337
Ser Tyr Val Met Ile
 1   5

<210> 338
<211> 17
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 338
Trp Ile Ser Ser Ser Gly Gly Tyr Thr Ser Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

<210> 339
<211> 8
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 339
Gly Pro Gly Thr Arg Gly Asp Tyr
 1   5

<210> 340
<211> 123
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 340

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Phe Tyr Ser His Ser Ala Gln Ser Val Leu Thr Gln Pro Pro Ser Ala
 1               5                  10                  15
Ser Ala Thr Pro Gly Gln Arg Val Thr Phe Ser Cys Ser Gly Ser Ser
            20                  25                  30
Ser Asn Ile Gly Ser Asn Ala Val Asn Trp Tyr His Gln Leu Pro Gly
        35                  40                  45
Thr Ala Pro Lys Leu Leu Ile Tyr His Asn Asn Gln Arg Pro Ser Gly
    50                  55                  60
Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu
65                  70                  75                  80
Ala Ile Ser Gly Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala
                85                  90                  95
Ala Trp Asp Asp Ser Leu His Gly Tyr Val Phe Gly Pro Gly Thr Lys
            100                 105                 110
Val Thr Val Leu Gly Gln Pro Lys Ala Asn Pro
        115                 120
```

<210> 341
<211> 131
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 341

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Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ile Tyr
            20                  25                  30
Pro Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Gly Ile Ser Pro Ser Gly Gly Tyr Thr Gly Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gly Gly Ile Ser Trp Phe Met Asp Tyr Trp Gly Gln Gly Thr
            100                 105                 110
Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
        115                 120                 125
Leu Ala Pro
    130
```

<210> 342
<211> 13
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 342

```
Ser Gly Ser Ser Ser Asn Ile Gly Ser Asn Ala Val Asn
 1               5                  10
```

<210> 343
<211> 7
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 343
His Asn Asn Gln Arg Pro Ser
1 5

<210> 344
<211> 11
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 344
Ala Ala Trp Asp Asp Ser Leu His Gly Tyr Val
1 5 10

<210> 345
<211> 5
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 345
Ile Tyr Pro Met Asn
1 5

<210> 346
<211> 17
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 346
Gly Ile Ser Pro Ser Gly Gly Tyr Thr Gly Tyr Ala Asp Ser Val Lys
1 5 10 15
Gly

<210> 347
<211> 9
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 347
Gly Gly Ile Ser Trp Phe Met Asp Tyr
 1   5

<210> 348
<211> 369
<212> DNA
<213> Unknown

<220>
<223> Light Chain nucleic acid sequence

<400> 348
ttctattctc acagtgcaca gagcgtcttg actcagccac cctcagcgtc tgcgaccccc 60
gggcagaggg tcaccttctc ttgttctgga agcagctcca acatcggaag taatgctgta 120
aactggtacc atcagctccc aggaacggcc cccaaactcc tcatctatca taataatcag 180
cgaccctcag gggtccctga ccgattctct ggctccaagt ctggcacctc agcctccctg 240
gccatcagtg ggctccagtc tgaggatgag gctgattatt actgtgcagc atgggatgac 300
agcctgcatg gttatgtctt cggacctggg accaaggtca ccgtcctagg tcagcccaag 360
gccaacccc 369

<210> 349
<211> 393
<212> DNA
<213> Unknown

<220>
<223> Heavy Chain nucleic acid sequence

<400> 349
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct atttacccta tgaattgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttctggt atctctcctt ctggtggcta tactggttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gagagggggc 300
atcagctggt ttatggacta ctggggccag ggaaccctgg tcaccgtctc aagcgcctcc 360
accaagggcc catcggtctt cccgctagca ccc 393

<210> 350
<211> 378
<212> DNA
<213> Unknown

<220>
<223> Light Chain nucleic acid sequence

<400> 350
ttctattctc acagtgcaca gagcgtcttg actcagcctc gctcagtgtc cgggtctcct 60
ggacagtcag tcaccatctc ctgcactgga accagtagtg atgttggtgc tagttataag 120
tttgtctcct ggtaccaact aaagccaggc aaagccccca aactcatgct ttttaatgtc 180
cgtgagcggc cctcaggggt ccctgatcgc ttttctgggt ccaagtccgg caacacggcc 240
tccctgacca tctctgggct ccaggctgag gatgaggctg actattactg ctgttcctat 300
gcacgcggcc agactttctc ttatgtcttc ggaggtggga ccacggtcac cgtcctaggt 360
cagcccaagg ccaacccc 378

<210> 351

<211> 402
<212> DNA
<213> Unknown

<220>
<223> Heavy Chain nucleic acid sequence

<400> 351
gaagttcaat tgttagagtc tggtggcggt cttgttcagc ctggtggttc tttacgtctt 60
tcttgcgctg cttccggatt cactttctct cgttactcta tggggtgggt tcgccaagct 120
cctggtaaag gtttggagtg ggtttcttct atccgtcctt ctggtggcta tactcgttat 180
gctgactccg ttaaaggtcg cttcactatc tctagagaca actctaagaa tactctctac 240
ttgcagatga acagcttaag ggctgaggac actgcagtct actattgtgc gaaagatctg 300
gagtatagca gtggctggtc atttgactac tggggccagg gaaccctggt caccgtctca 360
agcgcctcca ccaagggccc atcggtcttc ccgctagcac cc 402

<210> 352
<211> 126
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 352
Phe Tyr Ser His Ser Ala Gln Ser Val Leu Thr Gln Pro Arg Ser Val
1 5 10 15
Ser Gly Ser Pro Gly Gln Ser Val Thr Ile Ser Cys Thr Gly Thr Ser
20 25 30
Ser Asp Val Gly Ala Ser Tyr Lys Phe Val Ser Trp Tyr Gln Leu Lys
35 40 45
Pro Gly Lys Ala Pro Lys Leu Met Leu Phe Asn Val Arg Glu Arg Pro
50 55 60
Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala
65 70 75 80
Ser Leu Thr Ile Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr
85 90 95
Cys Cys Ser Tyr Ala Arg Gly Gln Thr Phe Ser Tyr Val Phe Gly Gly
100 105 110
Gly Thr Thr Val Thr Val Leu Gly Gln Pro Lys Ala Asn Pro
115 120 125

<210> 353
<211> 134
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 353
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Arg Tyr
20 25 30
Ser Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

```
Ser Ser Ile Arg Pro Ser Gly Gly Tyr Thr Arg Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Lys Asp Leu Glu Tyr Ser Ser Gly Trp Ser Phe Asp Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser
        115                 120                 125
Val Phe Pro Leu Ala Pro
    130
```

<210> 354
<211> 12
<212> PRT
<213> Unknown

<220>
<223> Light Chain amino acid sequence

<400> 354
Cys Ser Tyr Ala Arg Gly Gln Thr Phe Ser Tyr Val
 1   5   10

<210> 355
<211> 5
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 355
Arg Tyr Ser Met Gly
 1   5

<210> 356
<211> 17
<212> PRT
<213> Unknown

<220>
<223> Heavy Chain amino acid sequence

<400> 356
Ser Ile Arg Pro Ser Gly Gly Tyr Thr Arg Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

<210> 357
<211> 12
<212> PRT
<213> Unknown

<220>

<223> Heavy Chain amino acid sequence

<400> 357
Asp Leu Glu Tyr Ser Ser Gly Trp Ser Phe Asp Tyr
 1   5   10

<210> 358
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 4
<223> Xaa = Gln orArg

<221> VARIANT
<222> 5
<223> Xaa = Asp, Gly, Arg, or Ser

<221> VARIANT
<222> 6
<223> Xaa = Val or Ile

<221> VARIANT
<222> 7
<223> Xaa = Arg, Ser or Asn

<221> VARIANT
<222> 8
<223> Xaa = Asn, Arg, His, Ser or Thr

<221> VARIANT
<222> (9)...(0)
<223> Xaa = Tyr, Asp, Glu, Trp, Asn or Ser

<221> VARIANT
<222> (10)...(0)
<223> Xaa = Leu, Val, or Tyr

<221> VARIANT
<222> (11)...(0)
<223> Xaa = Ala, Gly, Asn or Leu

<400> 358
Arg Ala Ser Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1   5   10

<210> 359
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 5, 7, 8
<223> Xaa = any amino acid, e.g., a hydrophilic amino
acid

<221> VARIANT
<222> 6
<223> Xaa = Val or Ile

<221> VARIANT
<222> 9
<223> Xaa = Tyr, Asp, Glu, Trp, Asn or Ser

<221> VARIANT
<222> 10
<223> Xaa = is hydrophobic, or aliphatic

<400> 359
Arg Ala Ser Gln Xaa Xaa Xaa Xaa Xaa Xaa
1 5 10

<210> 360
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 8
<223> Xaa = Gly, Glu, Asp or Ala

<221> VARIANT
<222> 9
<223> Xaa = Ser, Arg or Val

<221> VARIANT
<222> 10
<223> Xaa = Asn or Tyr

<221> VARIANT
<222> 11
<223> Xaa = Thr, Leu, Phe or Asp

<221> VARIANT
<222> 13
<223> Xaa = Tyr or Thr

<400> 360
Ser Gly Ser Ser Ser Asn Ile Xaa Xaa Xaa Xaa Val Xaa
1 5 10

<210> 361
<211> 14
<212> PRT

<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 7
<223> Xaa = Ile or Val

<221> VARIANT
<222> 9
<223> Xaa = Asp, Gly or Tyr

<221> VARIANT
<222> 11
<223> Xaa = Asn, Glu or Asp

<400> 361
Thr Gly Thr Ser Ser Asp Xaa Gly Xaa Tyr Xaa Tyr Val Ser
 1   5   10

<210> 362
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 1
<223> Xaa = Ser or Thr

<221> VARIANT
<222> 2, 3
<223> Xaa = Asp or Asn

<400> 362
Xaa Xaa Xaa Gln Arg Pro Ser
 1   5

<210> 363
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 4
<223> Xaa = Ser or Thr

<221> VARIANT
<222> 5
<223> Xaa = Leu or Arg

<221> VARIANT
<222> 6
<223> Xaa = Gln or Ala

<400> 363
Gly Ala Ser Xaa Xaa Xaa
 1   5

<210> 364
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 1
<223> Xaa = Gln or Leu

<221> VARIANT
<222> 3
<223> Xaa = any amino acid or is hydrophilic, Ala, or
      Gly,

<221> VARIANT
<222> 4, 5
<223> Xaa = any amino acid or is hydrophilic

<221> VARIANT
<222> 6
<223> Xaa = aromatic, Thr , Arg or Lys

<221> VARIANT
<222> 8
<223> Xaa is hydrophobic

<400> 364
Xaa Gln Xaa Xaa Xaa Xaa Pro Xaa
 1   5

<210> 365
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 4, 5
<223> Xaa = any amino acid

<221> VARIANT
<222> 6
<223> Xaa = hydrophobic (e.g., aromatic)

<221> VARIANT
<222> 8
<223> Xaa = Pro, Leu or Arg

<400> 365
Gln Gln Tyr Xaa Xaa Xaa Pro Xaa Thr
 1   5

<210> 366
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 9
<223> Xaa = hydrophobic

<400> 366
Ala Trp Asp Asp Ser Leu Ser Gly Xaa Val
 1   5   10

<210> 367
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 9
<223> Xaa = Val or Trp

<400> 367
Ala Trp Asp Asp Ser Leu Ser Gly Xaa Val
 1   5   10

<210> 368
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 2
<223> Xaa = Ala or Thr

<221> VARIANT
<222> 5
<223> Xaa = Asp, Asn, Glu or Gln

<221> VARIANT

<222> 6
<223> Xaa = Ser or Thr

<221> VARIANT
<222> 8
<223> Xaa = Ser, Arg or Thr

<221> VARIANT
<222> 10
<223> Xaa = Val or trp

<400> 368
Ala Xaa Trp Asp Xaa Xaa Leu Xaa Gly Xaa Val
 1   5   10

<210> 369
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 2
<223> Xaa = any amino acid , Trp, Asp, Lys, Thr, Arg,
      His or Pro

<221> VARIANT
<222> 4
<223> Xaa = Asn, Trp, Asp, Glu, Pro, Thr, Arg, Ser, Val
      or Phe

<400> 369
Tyr Xaa Met Xaa
 1

<210> 370
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 1
<223> Xaa = arimatic

<221> VARIANT
<222> 3
<223> Xaa = any amino acid

<221> VARIANT
<222> 5
<223> Xaa = Asn, Trp, Asp, Glu, Pro, Thr, Ser, Val or
      Phe

<400> 370
Xaa Tyr Xaa Met Xaa
1 5

<210> 371
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 3
<223> Xaa = any amino acid, Trp, His or Thr

<400> 371
Trp Tyr Xaa Met
1

<210> 372
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 3
<223> Xaa = any amino acid

<400> 372
Gln Tyr Xaa Met
1

<210> 373
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 2
<223> Xaa = any amino acid, hydrophobic or Val, Tyr,
Trp, Arg, Ser, or Gly

<221> VARIANT
<222> 3
<223> Xaa = Pro or Ser

<400> 373
Ile Xaa Xaa Ser Gly Gly
1 5

<210> 374
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 2, 7
<223> Xaa = any amino acid

<221> VARIANT
<222> 3
<223> Xaa = Pro or Ser

<400> 374
Ile Xaa Xaa Ser Gly Gly Xaa Thr
1 5

<210> 375
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 2
<223> Xaa = Ser, Val, Tyr, Trp, Arg or Gly

<221> VARIANT
<222> 3
<223> xaa = Pro or Ser

<221> VARIANT
<222> 7
<223> Xaa = Gly, Lys, Leu, Arg, His, Phe, Tyr, Thr, Gly,
Gln, Asp, Met, Ile or Asn

<400> 375
Ile Xaa Xaa Ser Gly Gly Xaa Thr
1 5

<210> 376
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 2
<223> Xaa = Ser, Val, Tyr, Trp,Arg or Gly

<221> VARIANT
<222> 3
<223> Xaa = Pro or Ser

<221> VARIANT
<222> 7, 9
<223> Xaa = any amino acid

<400> 376
Ile Xaa Xaa Ser Gly Gly Xaa Thr Xaa Tyr Ala Asp Ser Val Lys Gly
 1   5   10   15

<210> 377
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 1, 2
<223> Xaa = Ser or Gly

<400> 377
Xaa Xaa Trp Tyr
 1

<210> 378
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 3
<223> Xaa = Ser or Gly

<400> 378
Ser Ser Xaa Trp Tyr
 1   5

<210> 379
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 1
<223> Xaa = Arg, His, Trp or Tyr

<400> 379
Xaa Tyr Tyr Tyr Gly Met
 1   5

<210> 380
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 1
<223> Xaa = Tyr, Ser or Gly

<221> VARIANT
<222> 2
<223> Xaa = Arg, His, Trp or Tyr

<400> 380
Xaa Xaa Tyr Tyr Tyr Gly Met Asp
 1   5

<210> 381
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 1
<223> Xaa = Ala, Gly, Gln, Ser or Val

<221> VARIANT
<222> 2
<223> Xaa = Ala, Thr or Ser

<221> VARIANT
<222> 3
<223> Xaa = aromatic

<221> VARIANT
<222> 4
<223> Xaa = any amino acid, or Glu, Asp, Arg, Thr or Ser

<221> VARIANT
<222> 5
<223> Xaa = any amino acid, or Asp, Asn, Gln, Lys, Arg
      or Ser

<221> VARIANT
<222> (7)...(0)
<223> Xaa = any amino acid, or Ser, Leu, Thr orAsn

<221> VARIANT
<222> (6)...(0)
<223> Xaa = Ser, Thr, Gly or Ala

<221> VARIANT
<222> (8)...(0)
<223> Xaa = Ser, Thr, Arg or Gly

<221> VARIANT
<222> (9)...(0)
<223> Xaa = Gly, Pro, Asn or Phe

<221> VARIANT
<222> (10)...(0)
<223> Xaa = any amino acid

<400> 381
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Val
1 5 10

<210> 382
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 1
<223> Xaa = Ser or Thr

<221> VARIANT
<222> 2, 3, 4
<223> Xaa = hydrophilic

<221> VARIANT
<222> 5
<223> Xaa = Leu, Arg or Asn

<221> VARIANT
<222> 6
<223> Xaa = pro, Arg or Gln

<400> 382
Xaa Xaa Xaa Xaa Xaa Xaa Ser
1 5

<210> 383
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT

<222> 3
<223> Xaa = Ser or Gly

<221> VARIANT
<222> 5
<223> Xaa = Ser or Tyr

<400> 383
Ser Ser Xaa Trp Xaa
 1   5

<210> 384
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 1
<223> Xaa = Ala, Asp, Glu or Gly

<221> VARIANT
<222> 2
<223> Xaa = Ala, Val, Asp, Asn or Glu

<221> VARIANT
<222> 3
<223> Xaa = Ala, Ser, Thr, Asn or Val

<221> VARIANT
<222> 4
<223> Xaa = Ser, Thr, Asn orGln

<221> VARIANT
<222> 5
<223> Xaa = Leu, Arg or Asn

<221> VARIANT
<222> (6)...(0)
<223> Xaa = Ala, Gln, Pro or Arg

<221> VARIANT
<222> (7)...(0)
<223> Xaa = Thr, Phe, Ser, Lys or Pro

<400> 384
Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1   5

<210> 385
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Exemplary motif

<221> VARIANT
<222> 1
<223> Xaa = Ala, Asp, Glu, Asn or Gly

<221> VARIANT
<222> 2
<223> Xaa = Ala, Val, Asp, Asn or Glu

<221> VARIANT
<222> 3
<223> Xaa = Ala, Ser, Thr, Arg, Asn or Val

<221> VARIANT
<222> 4
<223> Xaa = Ser, Thr, Asn or Gln

<221> VARIANT
<222> 5
<223> Xaa = Leu, Arg or Asn

<221> VARIANT
<222> (6)...(0)
<223> Xaa = Ala, Gln, Pro or Arg

<221> VARIANT
<222> (70)...(0)
<223> Xaa = Thr, Phe, Ser, Lys or Pro

<400> 385
Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1   5

<210> 386
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 1
<223> Xaa = Ala, Asp or Glu

<221> VARIANT
<222> 2
<223> Xaa = Ala or Val

<221> VARIANT
<222> 3
<223> Xaa = Ala, Ser or Thr

<221> VARIANT
<222> 4
<223> Xaa = Ser or Thr

<221> VARIANT
<222> 5
<223> Xaa = Leu or Arg

<221> VARIANT
<222> (6)...(0)
<223> Xaa = Ala or Gln

<221> VARIANT
<222> (7)...(0)
<223> Xaa = Thr, Phe, Ser or Lys

<400> 386
Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5

<210> 387
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 7
<223> Xaa = Ile or Val

<221> VARIANT
<222> 9
<223> Xaa = Ala, Asp, Gly or Tyr

<221> VARIANT
<222> 11
<223> Xaa = Asn, Lys, Glu or Asp

<221> VARIANT
<222> 12
<223> Xaa = Tyr or Phe

<400> 387
Thr Gly Thr Ser Ser Asp Xaa Gly Xaa Tyr Xaa Xaa Val Ser
1 5 10

<210> 388
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 1
<223> Xaa = Asn, Ser or Thr

<221> VARIANT
<222> 2, 3, 4
<223> Xaa = hydrophilic

<221> VARIANT
<222> 5
<223> Xaa = Leu, Arg or Asn

<221> VARIANT
<222> 6
<223> Xaa = Pro, Arg or Gln

<400> 388
Xaa Xaa Xaa Xaa Xaa Xaa Ser
 1   5

<210> 389
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 8
<223> Xaa = Gly, Glu, Asp or Ala

<221> VARIANT
<222> 9
<223> Xaa = Ser, Arg or Val

<221> VARIANT
<222> 10
<223> Xaa = Ala, Asn or Tyr

<221> VARIANT
<222> 11
<223> Xaa = Thr, leu, Phe or Asp

<221> VARIANT
<222> 13
<223> Xaa = Asn, Tyr or Thr

<400> 389
Ser Gly Ser Ser Ser Asn Ile Xaa Xaa Xaa Xaa Val Xaa
 1   5   10

<210> 390
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT

<222> 1
<223> Xaa = his, Ser or Thr

<221> VARIANT
<222> 2, 3
<223> Xaa = Asp or Asn

<221> VARIANT
<222> 4
<223> Xaa = Gln or Tyr

<400> 390
Xaa Xaa Xaa Xaa Arg Pro
 1   5

<210> 391
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 2
<223> Xaa = Ala or Thr

<221> VARIANT
<222> 5
<223> Xaa = Asp, Asn, Glu or Gln

<221> VARIANT
<222> 6
<223> Xaa = Ser or Thr

<221> VARIANT
<222> 8
<223> Xaa = any anini acid, e.g. Ser, Arg, Thr, His or
      Asn

<221> VARIANT
<222> 10
<223> Xaa = any amino acid, e.g., hydrophobic, e.g.,
      Val, Tyr or Trp

<400> 391
Ala Xaa Trp Asp Xaa Xaa Leu Xaa Gly Xaa Val
 1   5   10

<210> 392
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 1
<223> Xaa = Asn, Gln, Arg or Lys

<221> VARIANT
<222> 2
<223> Xaa = hydrophilic, Ala or Gly

<221> VARIANT
<222> 3
<223> Xaa = Aliphatic

<221> VARIANT
<222> 4, 5
<223> Xaa = hydrophilic

<221> VARIANT
<222> 6
<223> Xaa = any amino acid, or aromatic or hydrophilic

<221> VARIANT
<222> (7)...(0)
<223> Xaa = hydrophobic

<400> 392
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1   5

<210> 393
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<221> VARIANT
<222> 1
<223> Xaa = Thr or Ser

<221> VARIANT
<222> 2
<223> Xaa = Asp or Glu

<221> VARIANT
<222> 3
<223> Xaa = Aliphatic

<221> VARIANT
<222> 5
<223> Xaa = hydrophilic or Gly

<221> VARIANT
<222> 7
<223> Xaa = hydrophilic, or Asn, Glu, Asp or Gln

<400> 393

Xaa Xaa Xaa Gly Xaa Tyr Xaa Xaa Xaa Xaa
1 5 10

<210> 394
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary motif

<400> 394
Asp Phe Gly Ser
1